

EFFECTS OF TEACHING READING THROUGH DISCUSSION
OF TEXT STRUCTURES

Surachai Piyanukool, B. Ed., M. Ed.

Dissertation Prepared for the Degree of
DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

December 2001

APPROVED:

Diane D. Allen, Major Professor
Shobhana L. Chelliah, Minor Professor
Catherine K. Zeek, Committee Member
M. Jean Keller, Dean of the College of Education
C. Neal Tate, Dean of the Robert B. Toulouse
School of Graduate Studies

Piyanukool, Surachai. Effects of teaching reading through discussion of text structures. Doctor of Philosophy (Reading), December 2001, 101 pp., 8 tables, 2 illustrations, references, 115 titles.

The purpose of this study was to investigate the effectiveness of teaching reading through discussion of text structures on students' reading comprehension. The design of the study was a Pretest-Posttest Control-Group Design.

One hundred twenty-six sophomore and senior Thai college students majoring in English and attending afternoon English classes participated in the 10-week study and were randomly assigned to an experimental group and a control group. The experimental group received reading instruction in the characteristics of narrative and expository text structures and how to discuss the details of story by applying knowledge of text structures. The control group, on the other hand, read each story silently by themselves and answered comprehension questions.

The posttest means of the two groups were compared, and a t test was used to test the significance difference of the means. The results did not reveal any differences between the means. The short time of the intervention may be a crucial factor that made the two strategies yield the same effects. However, the survey responses showed the participants liked reading through discussion of text structures more than reading by themselves.

ACKNOWLEDGMENTS

The author received a scholarship to pursue a doctoral degree in Reading Education at the University of North Texas from the Thai government, and the budget to conduct this study also came from that scholarship. Moreover, the author received great help from Dr. Catherine K. Zeek, an Assistant Professor of the Department of Reading and Bilingual Education, Texas Woman's University. She gave many good suggestions in writing and how to do the study since the beginning. Dr. Diane D. Allen, an Associate Dean in the College of Education at the University of North Texas, was my major professor and worked closely with me on this study. Dr. Shobhana L. Chelliah, my minor professor, gave great advice on writing, and especially about teaching English to speakers of other languages (ESOL).

There are three other persons who allowed and helped the researcher to do the research at Rajabhat Institute Buriram, Thailand. They are Assistant Professor Pramote Benchakarn, Ph. D, the rector; Assistant Professor Patcharin Siri-umpunkul, Dean of Faculty of Human and Social Sciences; and Assistant Professor Anu Yodprommin, the Department Head of Foreign Language Program. The researcher would like to thank all of the people mentioned above.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	v
LIST OF FIGURES.....	vi
Chapter	
1. INTRODUCTION.....	1
Purpose of the Study	
Statement of Problem	
Significance of the Study	
Research Questions and Hypotheses	
Definition of Terms	
Limitations of the Study	
Assumption	
2. REVIEW OF THE LITERATURE.....	9
How Discussion Helps Students in Reading	
Sociocultural Theory	
Research Supporting Sociocultural Theory	
Discussion and Reading Comprehension	
How Discussion of Text Structures Improves Reading	
Comprehension	
Research Related to Narrative Text Structures	
Research Related to Expository Text Structures	
Effects of Discussion and Knowledge of Text Structures on	
ESOL Students	
Group Forming	
Conclusion	
3. METHODOLOGY.....	43
Research Design	
Description of Participants	
Instrumentation	
Data Analysis Procedures	
Conclusion	

4. DATA ANALYSIS.....	60
Introduction	
Pretest	
Intervention	
Posttest	
Conclusion	
5. DISCUSSION.....	72
Discussion of the Results	
Resolutions and Recommendations	
Contributions	
Conclusion	
APPENDIX.....	82
REFERENCES.....	88

LIST OF TABLES

	Page
Table 1 Findings of Research Investigating the Effects of Narrative Text Structure.....	24
Table 2 Findings of Research Investigating the Effects of Expository Text Structures...	29
Table 3 Passages and Text Structures	48
Table 4 Means, Standard Deviations, and Standard Error of Pretest Scores.....	62
Table 5 The t Test for Equality of Pretest Means	64
Table 6 Means, Standard Deviations, and Standard Error of Posttest Score	67
Table 7 The t Test for Equality of Posttest Means	68
Table 8 The Test of Homogeneity of Regression	69

LIST OF FIGURES

	Page
Figure 1 Vygotsky's Model of the Zone of Proximal Development.....	11
Figure 2 The Vygotsky Space.....	12

CHAPTER 1

INTRODUCTION

Reading is one of the crucial skills in learning languages. People believe that the more they read, the more they learn, or that reading is the road to knowledge. Five hundred and fourteen million people communicate in English (Famighetti, 1999). Therefore, non-English speaking learners or learners who learn English as speakers of other languages (ESOL) learn English because they are well aware of the importance of speaking and reading one of the international languages in this world. Although ESOL students in non-English speaking countries do not frequently have a chance to listen, speak, or write in English, they have more chances to apply English in their reading. They may read information on a variety of websites, English newspapers, labels and instructions of merchandise, and textbooks. ESOL students have a chance to employ their English reading skill more than other language arts skills, but most of them are still not able to read effectively. They cannot construct meaning from what they read (Carrell, 1989; Rumelhart, 1994). Their comprehension may be hindered by many factors, including poor use of reading strategies. They are not able to apply appropriate strategies to interpret what they read (Aebersold & Field, 1997; Block, 1992; Vann & Abraham, 1990).

Teachers and researchers around the world are also aware of the importance of students' reading comprehension, so they have created a variety of approaches to

improve students' reading comprehension. These types of reading instruction were confirmed to be reading strategies that help both native and ESOL learners improve their reading comprehension (León & Carretero, 1995). For example, Raphael and McMahon (1994) offered Book Club as an alternative framework for reading instruction. In this framework, 3-5 students work in a group called Book Club. The students are mixed on several traits such as gender, ethnicity, and reading ability to talk about books they read. Almasi (1996) found that peer-led discussion groups encouraged students to share their thoughts about a book they had read and helped students understand the story better from group discussion.

Another approach that researchers examined and found helpful in reading comprehension is applying knowledge of text structures to construct meaning in reading (Anderson & Pearson, 1984; Armbruster, Anderson, & Ostertag, 1987; Fitzgerald, 1984, 1986; Miller & George, 1992; Walker, 1995). Fitzgerald (1984), Fitzgerald and Teasley (1986), and Spiegel and Fitzgerald (1986) investigated the effects of story grammar (narrative story's text structure) on primary and middle school students' reading comprehension. The researcher found that knowledge of text structures improved the primary and middle school students' reading comprehension. Similarly, Miller and George (1992) created an outline of expository writing (expository structure), which they called a model of reading and writing for middle school students to use in reading and writing. These researchers found the expository structures made a significant and positive difference in both students' reading and writing performance.

Discussion enhances ESOL reading comprehension because students have a chance to learn from their peers, and the ideas they gain from discussion produce their own idea (Long & Porter, 1985). Knowledge of text structures serves as a strategy for ESOL students to recall important details of story (Carrell, 1984; Connor, 1984). There were no researchers who studied effects of discussion of text structures on students' reading comprehension. Therefore, the researcher generated the research question: "Will discussion of text structures increase ESOL students' reading comprehension?"

Purpose of the Study

The purpose of this study was to examine the effects of teaching reading comprehension through discussion of text structures on ESOL students' reading comprehension. The researcher compared post reading comprehension scores of students taught via group discussion of text structures and scores of students who read silently without discussion.

Statement of Problem

Even though ESOL students practice reading, they still have problems in reading comprehension. Block (1992) investigated the comprehension-monitoring process used by first and second language readers of English as they read expository prose, and found that most of the less proficient ESOL readers did not employ their comprehension-monitoring process effectively. That is, they failed to indicate the sources of reading problems in the passage, did not solve the problems, or check their solutions. In addition, traditional reading teachers who simplified texts for students or told the meaning of all words distorted the comprehension-monitoring process because students did not need to

try to construct the meaning. Furthermore, Vann and Abraham (1990) examined why ESOL learners did not succeed in learning English, and found that the students failed to apply appropriate strategies to reading, speaking, vocabulary, and writing. To solve these problems, reading strategies should be explicitly taught to ESOL students (Carrell, 1985; Carrell, Pharis, & Liberto, 1989; Pearson & Fielding, 1991). Applying knowledge of text structures such as setting, problems, cause-effect, or compare-contrast to recall the details of stories was one of the effective reading comprehension strategies (Connor, 1984; Carrell, 1984). Discussing details of stories was also a reading strategy that helped readers comprehend reading (Raphael & McMahon, 1994). There were a number of researchers who studied the effects of text structures and book discussion, but there were no researchers who investigated the effects of discussing the details of stories by employing text structures as a guideline. Thus, the researcher wanted to explore this issue.

Significance of the Study

The goal of educators and teachers is to enhance students' reading achievement. The goal of students is to comprehend what they read. Jordan (1994) posited that if students failed in reading, their academic achievement seemed to be affected. If the reading problem was ignored, the students would lack self-esteem, interest, and their lifelong reading achievement would be low. That is, they would not succeed in reading as long as no one helped them improve reading, or they did not improve themselves. One problem of ESOL students is they are not able to employ reading strategies suitable to the selections they read. Employing appropriate reading strategies helps students improve in

reading comprehension (Carrell, 1989; Pearson & Fielding, 1991). Thus, reading teachers need to look for effective reading strategies for narrative stories and expository passages. Discussing the details of selections read is an effective strategy to construct meaning in reading. Similarly, knowledge of text structures increases students' recall of both narrative and expository texts. Therefore, it is necessary to conduct the study to investigate the effects of discussion of text structures on ESOL reading comprehension.

Research Questions

The question guiding this research is "Will discussion of text structures increase ESOL students' reading comprehension?"

Hypotheses

The researcher set 2 hypotheses for this study. They were a null hypothesis (H_0) and an alternative hypothesis (H_a). The null hypothesis stated that ESOL students who learn to comprehend written selections through discussion of text structures, and students who read silently without discussion of text structures will achieve the same scores on a posttest of reading comprehension ($H_0: \mu_1 - \mu_2 = 0$). This null hypothesis was set against the alternative hypothesis. If the null hypothesis was rejected, the alternative hypothesis would be accepted. The alternative hypothesis stated that ESOL students who learn to comprehend written selections through discussion of text structures will achieve higher scores on a posttest of reading comprehension than ESOL students who read silently without discussion of text structures ($H_a: \mu_1 - \mu_2 > 0$).

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_a: \mu_1 - \mu_2 > 0$$

The level of significance (α) for testing these hypotheses was set at .05. That is, if the null hypothesis was rejected, the probability of rejecting the null hypothesis when exactly the two mean scores were not different was less than 5 % in 100 %.

Definition of Terms

For the purpose of this study, the following terms are defined.

Discussion – Students talk about text structures and details in small groups, while the teacher is a facilitator.

ESOL students – Students who study English as a second, third, or foreign language whether in non-English speaking surroundings or an English-speaking environment.

Expository text – Text which is written to present factual information or ideas. This type of text is referred to as content area text, which includes social studies, math, or science (Spafford, Pesce, & Grooser, 1998). Expository text may have the following structures: cause-effect, comparison-contrast, problem-solution, description, and sequence (Harris & Hodges, 1995).

Narrative text – Text which is written to express either a true or fictional story such as traveling, autobiography, fairy tale, and novel (Gary & Snodgrass, 1999). Narrative text may contain the following elements: characters, setting, plot, theme, resolution (Spafford, Pesce, & Grooser, 1998; Swearingen & Allen, 1997).

Story grammar – The basic parts of a narrative story such as setting, plot, and major theme (Spafford, Pesce, & Grooser, 1998).

Strategy – A systematic plan that learners consciously apply to improve their performance in learning (Harris & Hodges, 1995).

Text structure or story structure – The organization of text. Text is usually organized as either narrative or expository.

Limitations of the Study

The following limitations apply to this study. First, the participants of this study were Thai sophomores and juniors, majoring in English and attending afternoon English classes at Rajabhat Institute Buriram, Thailand. These participants were the limitation because all of the college students and other majors were not included in this study. Second, the random sampling was done to the sophomores and juniors, majoring in English and attending afternoon English classes. Third, the findings of this study were applicable to these ESOL college students studying in non-English- speaking country. Finally, most of the stories and passages were provided in Explaining in English (Holmes, 1998), a textbook for Thai college or university students. This textbook was composed of passages for which students had some background knowledge.

Assumptions

The following assumptions were applicable to this study. First, the passages or books provided by the researcher met the definition of terms in this study. Second, the students have achieved acceptable levels of fluency in English speaking, reading, and writing. That is, they were able to communicate in English with their peers and teachers through speaking, reading, and writing. For example, they were able to discuss the read story with their peers and teachers, read and understand the provided reading materials

and comprehension questions, and they were able to write the answers to those questions. Third, the English reading comprehension fluency of the experimental and control groups was not significantly different. Fourth, the presence of the researcher did not affect the students' performance. Finally, the statistical test appropriately met identified assumptions.

CHAPTER 2

REVIEW OF THE LITERATURE

Recently two factors of reading comprehension were claimed to be very beneficial for readers. The first factor, students' talk about books they have read with their peers, was presented to be an effective way to enhance reading comprehension (Raphael & McMahon, 1994). Another component, students' knowledge of text structures was also claimed to be a vital variable generating the understanding of the text (Smith, 1983; Stotsky, 1983; Tierney, LaZansky, Raphael, & Cohen, 1987). If these two propositions are true, the question will be raised whether having students talk about the structure of text and story that they read may help them better understand the whole story. The purpose of this research, therefore, is to study the effects of students' text structure discussion on their reading comprehension.

This review of literature is divided into three sections. The first section is about how discussion helps students comprehend reading. This part includes sociocultural theory, research supporting sociocultural theory, and effects of discussion on reading. In the second section, the researcher discusses how text structure discussion improves reading comprehension. Research done to investigate the effects of knowledge about narrative and expository text structures is described. The last section is about the effects of discussion and knowledge of text structures on non-English speaking students' reading

comprehension. Moreover, how to organize group discussion in the classroom is also discussed in this part.

How Discussion Helps Students in Reading

Traditional ideas of classroom discussion are different from current ideas. In the past, the teacher posed a question, had a student answer the question, and told the student whether the student's answer was correct or incorrect. Then the teacher asked a new question of a student. Thus, traditional discussion served as an assessment tool for the teacher, with the discussion held by the teacher (questioner) and a student (respondent) (Almasi, 1996). Later, sociocultural theory changed the concept of classroom discussion. A discussion of sociocultural theory and its impact on classrooms are presented in the following section.

Sociocultural Theory

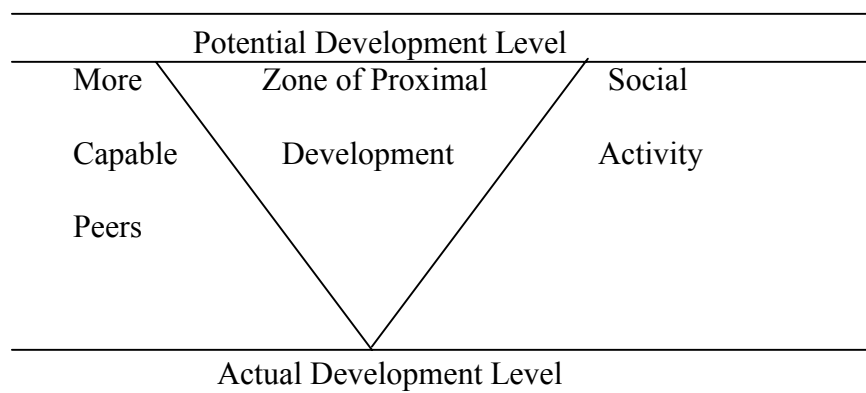
Sociocultural theory is the theoretical framework supporting the teaching of reading through discussion of text structures. This discussion focuses on three areas: how group discussion serves as an important component in reading or language learning, how story structure serves as a mediational device to help children learn, and how teachers can work with children within a Zone of Proximal Development (ZPD).

Vygotsky (1978), a Russian psychologist, was a seminal theorist in the development of sociocultural theory, and his perspective was accepted by many educators as critical for teaching and learning. According to Wertsch (1985), there are three crucial domains in Vygotskian theory: genetic analysis, social interaction, and semiotic

mediation. Social interaction and semiotic mediation are pertinent to this study, and they are discussed separately.

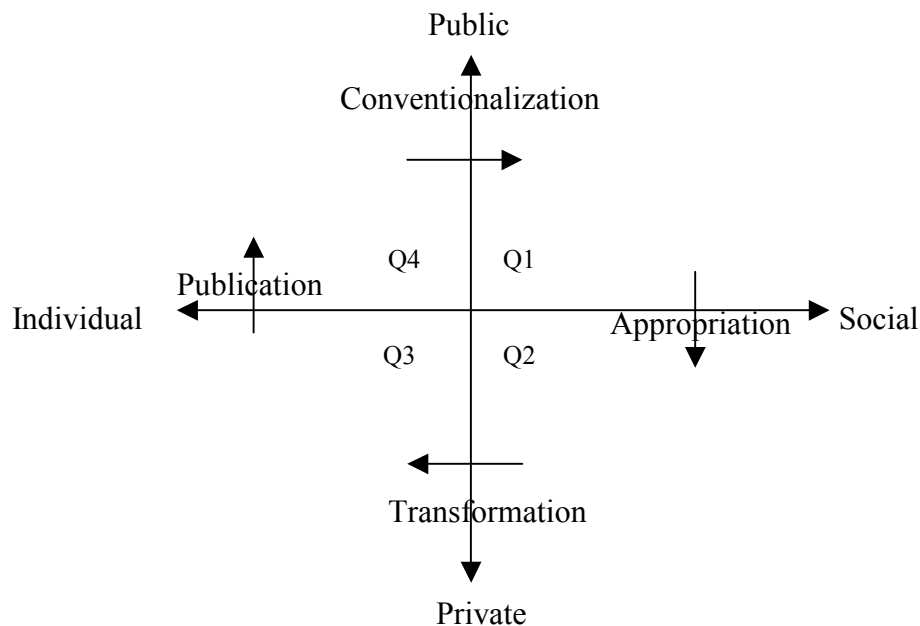
Social interaction is vital to the current discussion of learning because it promotes social learning such as classroom discussion, group work, or shared reading. In a social learning situation, the teacher provides problems or topics for students to brainstorm for the answers or information about the given topic. Students help each other in problem solving and learn from group working. Vygotsky's key idea is his notion of the Zone of Proximal Development (ZPD)(see Figure 1). Vygotsky (1978) pointed out that all learners have two levels of their thinking development: actual development level and potential development level. The actual development level refers to the thinking level at which the children can solve the problems by themselves, while the Zone of Proximal Development is "... the distance between the actual development as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).

Figure 1. Vygotsky's Model of ZPD



In Figure 1, the inverted triangle represents the Zone of Proximal Development (ZPD), and locates between the Actual Development Level and Potential Development Level. An individual or a child who can solve the problems of learning by her or himself is at the Actual Development Level. These children will be able to learn or solve more complicated problems, which are at their real capacity or Potential Development Level through some guidance from the teacher (adult) and more capable peers. Vygotsky suggested that learning activity which helps children solve harder problems and reach their Potential Development Level is social activity such as group work, brainstorming, and discussion. There is another model that presents how a child can learn or solve problems through social activity. This model is called The Vygotsky Space (Gavelek & Raphael, 1996; Harré, 1984).

Figure 2. The Vygotsky Space



This model includes two axes and four quadrants. The Public-Private axis refers to the cognitive strategies that students use to interpret text. These strategies may be either public (observable) or private (unobservable) strategies. For example, a child thinks aloud in presenting what the child thinks about the story to the child's friends, and this makes cognitive strategies observable. In contrast, the child's thinking while the child is reading cannot be observed. We can infer the child's strategies through the child's writing or speaking. The Individual-Social axis "...reflects the degree to which students either use the knowledge learned from others or make what was learned their own" (Gavelek & Raphael, 1996, p. 187). For example, a teacher demonstrates to students an outline of a writing essay and tells students to create an outline before they write an essay. If the students make only the same outline learned from the teacher whenever they write, they are performing on the social end of the individual-social axis by using exactly what they have learned. However, if a child creates a different outline for the child's own needs, the child moves to the individual end of the individual-social axis by adapting the model to meet individual needs.

The four quadrants present the movement of a learner's thinking process through appropriation, transformation, publication, and conventionalization. The first quadrant (Q1), public-social quadrant, suggests children learn with their classmates and teacher by discussing, sharing, or peer tutoring. Students' thinking can be detected here while they are speaking or showing their writing or drawing. Actual teaching procedures occur in the public-social quadrant. For example, teachers may have students discuss the story or write key sentences or phrases into story grammar (narrative story) or expository

structure (expository story). "Public cognitive activity may occur in a whole-class-instructional setting or smaller one-to-one settings, such as a teacher-student writing conference" (Gavelek & Raphael, 1996, p. 185).

The second quadrant (Q2) is private-social quadrant. That is, children think about the things that they have learned, and internalize these things. The movement from Q1 to Q2 is called the process of appropriation, which means children employ the strategies that they learn in public-social setting of the first quadrant. The children's thinking is unobservable, but when children write what they think, the teacher can infer the strategies of their thoughts by examining the writing.

The third quadrant (Q3) is private-individual quadrant, in which student's thinking is unobservable as in the second quadrant. In this quadrant, the students create learning strategies by themselves on the basis of what they have learned from the social settings. The students engage in a process of transformation. "Transformations frequently occur within the private dimension and, therefore, can only be inferred from student's individual work once it is made public" (Gavelek & Raphael, 1996, p. 187). For example, a student learns a variety of story mappings from teacher and from group discussion, then that student invents a different mapping by her or himself and presents to the class. The student's thinking about a new mapping is transformation, and this thinking is unobservable. But when the student presents the students' mapping to the class, we can trace the students' thinking.

In the fourth quadrant (Q4), public-individual quadrant, the children reveal their thinking to the public by speaking or writing (publication). For example, the student who

creates a new outline for writing an essay presents the outline to the class, gives reasons of creating, and teaches the class how to create. The student's thoughts are made public through writing a new outline and speaking. The teacher and peers may give feedback by asking questions, by critiquing it, and by accepting this new outline to use in writing their own essays. The process of discussing the new idea in the class is called conventionalization.

The process of children's thinking moves recursively and continually among appropriation, transformation, publication, and conventionalization within the social interaction, and from the past to present. Vygotsky (1978) posited that children's process of thinking is generated two times, that is, through social interaction (interpsychologically) and within the child (intrapsychologically). He called this notion his general genetic law of cultural development. The ZPD and Vygotsky's space present the advantages of discussion in the classroom; that is, students learn from direct teaching, group discussion, and then the students create new knowledge from what they internalize.

Another domain of Vygotsky's work is semiotic mediation, which refers to the use of signs and symbols. He claimed that language is the most effective tool to mediate children's thinking. In addition to Vygotsky, there is another well-known Russian scholar, Bakhtin, who discussed the use of language to help children learn. According to Wertsch (1991), Bakhtin believed that children will understand the interlocutor's thinking thoroughly if they are aware of utterance, voice, and dialogicality. An utterance is not the same as sentence because utterance is a unit of speech communication, while sentence is a unit of language as described in a grammar text. The utterance must be produced by

voice. Voice “is concerned with the broader issues of speaking subject’s perspective, conceptual horizon, intention, and world view”(p. 51), while dialogicality refers to “... the ways in which one speaker’s concrete utterances come into contact with ... the utterances of another” (p.54). The listeners will understand the speakers’ meaning if the speakers can reveal effectively who they are and what they are doing. The topics that the speakers and listeners bring to the conversation shape the nature of their talking. For example, “What is your name?” is a sentence because there is not any hidden meaning. “Life is good” is an utterance because the meaning depends on the experience of the speaker. Another example of utterance, voice, and dialogicality is the Watergate scandal in 1973. In the scandal, Ronald Ziegler, Richard Nixon’s secretary, expressed many false or misleading statements to protect Nixon and his company. Later, when his statements were proved wrong, he termed those statements inoperative. When the American people heard this utterance (inoperative), they may have thought of the original’s voice in the scandal context, and their feelings when they hear or use this word were ridiculous and shameful. The dialogicality here is the ways in which Ziegler’s utterances interact with the listener’s utterances.

Another scholar who presents the idea of semiotic mediation is Gee (1996). He addressed the notion that voice and dialogicality are constructed in cultural contexts, which he called social genres. Our social genres are comprised of ways of talking, interacting, thinking, believing, and valuing, and Gee referred to social genres as Discourse. Each person has multiple genres and forms these genres into a sort of identity kit which influences how people act and what they say in certain situations within the

cultural model to which they are trying to belong. Gee claimed that communication and understanding are rooted in these social languages or genres.

The ideas of semiotic mediation alert teachers to the need to be aware of effectively using language in the classroom. Teachers and children (especially children who study English as a second language) may be from different social backgrounds and have different utterances, voice, and discourses, so teachers have to try to understand children's language and help children to understand teachers' language. Teachers who teach black American children should know black American English and help these children learn standard American English. In the same way, English teachers who teach Asian students should know the difference between Asian language and American English. Teachers' speaking and stories that teachers bring to reading classes should not totally differ from students' background knowledge (Au, 1997; Rosenblatt, 1994).

Sociocultural theory suggests that classroom discussion is done within classroom society. The teacher has students work in groups, then a child learns from discussion within the group, and uses the ideas discussed in the group to generate a new idea. The teacher has a role of facilitator to help or guide children to reach their potential development through their social interaction.

The three domains of Sociocultural Theory, Genetic Analysis, Social Interaction, and Semiotic Mediation, are the crucial factors for teachers to be aware of in teaching. Social interaction plays the most important role in Teaching Reading through Discussion of Text Structures because discussion helps students comprehend what they read. Semiotic Mediation, which is the language the teacher speaks to students, students speak

to students, and the text structures, serves as the vehicle for constructing the meaning of text. Finally, the genetic analysis, reminds teachers to think about students' cultural and historical background when they teach multicultural students. These will help teachers to select appropriate language, material, and social activity for those students. So the sociocultural theory is the solid backup of this reading instruction.

In the next section, studies employing sociocultural theory to teach language is discussed.

Research Supporting Sociocultural Theory

Many researchers have examined how sociocultural theory applies to classroom settings. These researchers support the value of sociocultural principles in students' learning and development. In general, these studies indicate that students improve their learning through the teacher's guides and discussion among their peers. In this section, studies of language learning based on such principles is discussed.

Englert, Raphael, Anderson, Anthony, & Stevens (1991) examined the effects of writing instruction that attempted to improve students' expository writing abilities through emphasizing teacher and student dialogues about expository writing strategies, text structure processes, and self-regulated learning. The researchers demonstrated a think aloud procedure about the type of text structure that had been written, modeled the writing process, encouraged students to participate in a dialogue about the writing process, and had students write independently. They found that the dialogic instruction was effective in promoting students' expository writing abilities on two text structures taught during the intervention and in leading to improved abilities on a near transfer

activity, in which students wrote using a text structure not taught during the intervention. The results support the importance of instruction that makes the writing process and strategies visible to students through teacher-student and student-student dialogues.

Almasi (1994) studied the effects of peer-led and teacher-led discussion of literature on fourth graders' sociocognitive conflicts over a period of 9 weeks. The students were matched into 2 groups on the basis of their reading comprehension scores, and they showed no difference in their ability to recognize and resolve conflicts prior to the study. On day 1 of each week, stories were introduced. On day 2, students read the entire story silently and recorded personal reactions, comments, and questions in their journals. On day 3 of each week, group discussion of the story occurred.

The peer-led group was decentralized and designed to facilitate optimal interaction among students as they constructed meaning from text. In the teacher-led groups, teachers directed discussion by asking students comprehension questions. The researchers found that children in the peer-led discussion group were better able to recognize and resolve episodes of sociocognitive conflict than children in the teacher-led group.

Dixon-Krauss (1995) found that students improved most in word recognition when peer social dialogue was integrated with teacher support to develop students' reading, writing, and thinking. The researcher matched 12 pairs of students, a more capable reader with a less capable reader. Each pair of students talked to each other about their reading and writing with teacher support. In reading, one student helped her or his partner by telling some strategies in sounding out the words, or constructing the meaning

such as telling the partner to look at the pictures, or asking questions about the details of the stories. In writing, the students wrote about the book they had read, gave those journal writings to their partners, and the partners wrote the feedback. Teacher supported the students by setting mini-lessons and demonstrating how to sound out the words or interpreting the meaning of text by thinking out loud. The researcher found that the teacher's assistance led to improvement in students' writing and use of a variety of strategies to share text meaning in verbal dialogue.

Takahashi (1998) did a three-year-long qualitative study observing the development of foreign language learning of elementary school students. These students' language acquisition was guided by teacher and their peers. The lesson began with saying one word, then a phrase, or a sentence. The teacher had students answer altogether first, then one by one. When a student gave the wrong answer, the teacher guided that student by repeating the target word or sentences. The student's peer said some vocabulary to remind and help the student figure out the right answer. The researcher found that (1) the assistance of teacher and peers enhanced the students' language learning, (2) when their language ability was improved, they could help each other more in classroom activities, and (3) the students' language improvement was the result of social interaction in the classroom.

These studies found positive effects of having students help each other in the classroom while the teacher provided some effective guidance. In the next part, the advantages of discussion in language learning, especially in learning to read is discussed.

Discussion and Reading Comprehension

Researchers have found positive effects of discussion on students' reading comprehension. The advantages of discussion is described in the following section.

First, students have a chance to exchange their ideas while they are discussing. They give each other a chance to express and supply reasons to support their ideas, and they listen to each other with respect. They "... assist each other in drawing inferences from what has been said, and seek to identify one another's assumptions (Lipman, 1991, p. 15). Cambourne (1995) posited that discussion allowed the exchange and interchange of interpretations, constructed meanings, and understanding, and that learning that had social dimensions such as discussion is usually successful.

The next advantage is that students have the opportunity to play various roles such as inquisitor and facilitator, and to become personally motivated. The discussion provides a chance for students to raise questions and increase the ability to confront more complicated texts (Commeyras, 1994; Galda, Bisplinghoff, Pellegrini, & Stahl, 1995; O'Flahaven, Stein, Wiencek, & Marks, 1992; Wollman-Bonilla, 1994). Relating to the role, students feel highly motivated to learn in classrooms where their teachers encourage them to express their ideas, value their personal construction of meaning, and listen to and respect their ideas and feelings (Oldfather, 1993).

In addition, discussion resolves the conflicts between the students' old beliefs and the new information gained from text (Almasi, 1995), and their understanding may be broader and deeper than the ideas constructed by individuals working alone (Golden, 1987; Rosenblatt, 1985). Besides, because of discussion, students score higher in

interpreting story meanings (Stahl & Vancil, 1986). Discussion helps students resolve conflicts in understanding texts as well as improving the quality of their thinking about text (Johnson, Johnson, Stanne, & Garibaldi, 1990).

Finally, discussion requires students to read and think more, and prepare information, evidence, or ideas to support their talking (Guthrie, Schafer, Wang, & Afflerback, 1995; McMahon & Goatley, 1995). In general discussion, students initiate topics, set questions, investigate their own and their peers' ideas, and present their concepts (Barnes, 1975; Britton, 1982; Cazden, 1988; Edwards & Westgate, 1987; Watson & Young, 1986; Wollman-Bonilla, 1994). In discussion of reading, students have to read and think thoroughly, and these activities facilitate reading comprehension.

The researchers discussed in this section found positive effects of discussion on reading comprehension. In these studies, students discussed the stories they had read, and they understood and remembered the stories; therefore, if those children focus their discussion on details and text structures, they may better comprehend and remember the stories because text structure is a crucial element of the story. How discussion of text structures improves reading comprehension is described more in the next section.

How Discussion of Text Structures Improves Reading Comprehension

There are two types of text structures: story grammar related to narrative text and expository structure related to expository text. Story grammar or story schema is “the pattern of organization in narration that characterizes a particular type of story, usually in simplified terms such as problem, action, goal, setting, and outcome” (Harris & Hodges, 1995, p. 243-244). Story grammar may be comprised of setting, problem, goal, action,

and outcome (Idol, 1987) or title, character, setting, plot, and resolution (Swearingen & Allen, 1997). For expository structure (or structured overview), Harris and Hodges (1995) gave this definition, "... a form of graphic organizer in which important concepts of a topic or unit of study, as reflected in its vocabulary, are displayed visually to anticipate, reverse, and confirm relationship among the concepts" (p. 245). Expository text structure may include main idea and supporting details (Flood, Lapp, & Farnan, 1986), or with four or five paragraphs in which the first paragraph expresses the problem, the second, third, and fourth paragraph present different solutions, and the last paragraph contains the conclusion (Miller & George, 1992).

In classroom settings, teachers present the elements of story grammar and provide practice from a variety of storybooks. In experimental settings, students may read well-written stories, which have all story elements, and poorly-written stories, which lack some elements, and then recall the story orally or in writing. In the next section, the results of research into the effects of story grammar on children's reading comprehension is presented.

Research Related to Narrative Text Structures

Many researchers investigated the effects of narrative text structure on elementary and middle school students' reading comprehension and writing ability, and they found positive results of the structure. Table 1 below presents what the researchers found in teaching students narrative text structures. The studies were conducted from 1980 to the present.

Table 1.

Findings of Research Investigating the Effects of Narrative Text Structures

Findings	Participants
A. Students improved their recall.	
1982 – Gordon, & Braun	5 th Graders
1984 – Tacket, Patberg, & Dewitz	6 th Graders
1986 – Brennan, Bridge, & Winograd	2 nd Graders
1986 – Greenwall, & Rossing	6 th Graders
1986 – Wagner	Age 4, 6, 8
B. Students gained high scores on reading comprehension.	
1984 – Braun, & Gordon	5 th Graders
1984 – Fitzgerald	4 th and 6 th Graders
1986 – Spiegel, & Fitzgerald	4 th Graders
1986 – Wagner	Age 4, 6, 8
1987 – Idol	3 rd and 4 th Graders
1987 – Pehrson, & Denner	Review Research
C. Students improved their reading and writing ability.	
1984 – Fitzgerald	4 th and 6 th Graders
1986 – Fitzgerald, & Teasley	4 th Graders
D. Students predicted story correctly.	
1984 – Fitzgerald	4 th and 6 th Graders

(table continues)

Table 1. (continued)

Findings	Participants
E. Students comprehended well-formed text structures better than incomplete ones.	
1984 – Hartson	1 st and 2 nd Graders
1986 – Brennan, Bridge, & Winograd	2 nd Graders

Gordon and Braun (1982) investigated the effect of knowledge of story schemata on the structure of children's recall and written narratives. They found the students (fifth graders) who were taught story schemata recalled more text structure categories and answered more questions correctly than the students who did not learn story schemata. In 1984, Braun and Gordon studied the effects of story grammar again on fifth-grade pupils. The pupils were randomly assigned to experimental and control groups. The first group received instruction in writing narratives emphasizing story grammar elements. The second group learned how to write poetry with emphasis on story grammar. After receiving instruction, they were tested by writing or reading. The researchers found no significant difference between the two groups on total number of text structure categories produced. They found, however, that the experimental group scored higher on the comprehension subtest administered after the treatments.

Fitzgerald (1984), Fitzgerald and Teasley (1986), and Spiegel and Fitzgerald (1986) studied the effects of narrative structures on students' reading and writing ability. Three studies of Fitzgerald indicated that knowledge of narrative structures improved

elementary and middle school students' reading and writing ability. In 1984, Fitzgerald studied the relationship between reading achievement and readers' predictive abilities for narrative text structure. The participants of this study were fourth and sixth graders. Students in both grades were randomly assigned to read incomplete stories. Then they predicted the next part of the stories orally and answered literal comprehension questions. The major finding was a positive relationship between reading achievement and ability to anticipate narrative text structures during reading at each grade level. There was no significant difference between fourth and sixth graders in the extent to which particular components of story structures were expected. In 1986, Fitzgerald and Teasley explored the effects of narrative structures on fourth graders' writing. They found that text structure knowledge improved organization and enhanced the overall quality of their written stories. In 1986, Spiegel and Fitzgerald examined the effects of knowledge of story parts on reading comprehension of fourth graders. They found that instruction in story structures improved children's knowledge of story structures. The students who learned story structure outscored the students who did not learn story structure on comprehension tasks, and they were more willing to guess at information.

Hartson (1984) investigated the effects of structure of narrative text on the beginning reader's (first and second graders) comprehension. The researcher found that the participants comprehended the well-formed version of the story including all story elements better than the variant versions, in which story elements were omitted and placed out of sequence. For the folktale story, there were no differences in the students' comprehension of well-formed story structures and variant story.

Tackett, Patberg, and Dewitz (1984) investigated the effects of story structure instruction on the recall of 45 sixth-grade students with low concept of story. The students were from low socioeconomic background. The treatment group received direct instruction in story structures, while Control Group 1 received no story structures instruction and Control Group 2 received no story structure instruction and did not read stories. All students were individually posttested through a free recall measure. The researchers did not find differences in recall, but the instruction had some strong effects on students with the lowest concept of story. They recalled more total propositions than did both the students in Control Group 1 and 2.

Brennan, Bridge, and Winograd (1986) asked a group of second-grade students to read a basal passage written in well-organized story grammar, and another group read a different passage not written in well-formed story grammar. They found that knowledge of story structures helped the second graders who read the well-formed version recall more explicitly stated information (but not implicit information), and to recall it in correct sequence with less text-erroneous information.

Greenewald and Rossing (1986) examined the short term and long term effects of story grammar and self-monitoring training on fourth graders' story comprehension. They found that story grammar and self-monitoring helped children improve on guided recall and retelling on both immediate and delayed administrations.

In addition, Wagner (1986) examined the effect of text structures and reading ability on young children's (age 4, 6, and 8) response to literature. The children listened to a narrative story, an expository story, and a picture book, then retold the story orally

and answered comprehension questions. The researchers found the expository story produced more verbalizations, the narrative story produced more statement of dialogue, and students scored the highest on comprehension of the narrative story.

In 1987, Pehrsson and Denner reviewed research on the effects of text structures in reading, children's awareness of text structure, and the effects of training in text structures. They concluded that knowledge of text structures improves students' reading comprehension. Idol (1987) taught third and fourth graders story grammar and investigated the effects of the knowledge of story grammar on children's reading comprehension. The researcher found that story grammar helped children maintain comprehension improvement even though instructional and testing materials were above their reading levels.

The results of the above studies indicate that awareness of narrative story structures served as a strategy for readers to remember and recall the details of stories. It helped readers orally recall full details of stories and increased their reading comprehension scores.

The results of studies on the effects of expository structures is discussed in the next section.

Research Related to Expository Structures

A number of researchers investigated the effects of expository structures on reading and writing. Table 2 below shows what they found.

Table 2.

Findings of Research Investigating the Effects of Expository Text Structures

Findings	Participants
A. Students improved their recall and writing.	
1984 – Taylor, Beach	7 th Graders
1985 – Raphael, Kirshner	6 th Graders
1987 – Richgels, McGel, Lomax, & Sheard	6 th Graders
1991 – Yochum	5 th Graders
1992 – Miller, & George	6 th Graders
B. Students improved summary writing.	
1985 – Roller, Schreiner	6 th Graders
1987 – Armbruster, Anderson, & Ostertag	5 th graders
C. Students improved reading comprehension.	
1985 – Raphael, & Kirshner	6 th Graders
1992 – Troyer	5 th Graders
1994 – Troyer	4 th , 5 th , 6 th Graders
1995 – Dickson, Simmons, & Kameenui	Research Synthesis
1995 – León, & Carretero	High School Students
1995 – Walker	5 th Grader
D. Students were able to apply the knowledge of text structures to unfamiliar text.	
1995 – León, & Carretero	High School Students

Taylor and Beach (1984) examined the effects of expository text structure instruction on seventh graders' comprehension and writing, and they found improved recall for only relatively unfamiliar materials and positive effect on the quality of expository writing.

Raphael and Kirschner (1985) investigated how knowledge of text structures affects reading comprehension and writing. The researchers focused on teaching sixth grade students to use text structures in comprehending social studies texts and writing expository passages. The text structure that was taught was compare-contrast text structure. The researchers found that the instruction enhanced students' ability to both identify and organize expository writing, improved their performance in the free recall text, and improved their selection and organizing of information in the free writing test.

Roller and Schreiner (1985) examined the effects of the utilization of narrative and expository organizational instruction on sixth-grade children's comprehension of prose. The subjects read the passages, answered multiple-choice questions, and wrote summaries of what they had read. The researchers found that those who were taught by the organizational instruction wrote better summaries than the children who received traditional instruction.

Richgels, McGel, Lomax, and Sheard (1987) taught structural patterns in expository writing such as collecting, comparison-contrast, causation, and problem-solution, to sixth-grade children, and found that the children who were aware of structure recalled more information and more main ideas. There was a positive link between knowledge of structure and recall of the expository text.

Armbruster, Anderson, and Ostertag (1987) studied the effects of problem-solution text structure and summarization on fifth-grade students' reading and writing. Students learned through workbooks, which provide problem-solution text structures, problem-solution passages, copies of problem solution frame, and how to summarize. After training, the students completed a test in reading and writing. For the reading test, the students wrote an essay for a question and completed a 10-item short answer section, while in the writing test, they wrote summaries. The researchers found that the students who were trained in text structures scored higher on the reading test and wrote better summaries than the students who were not trained in text structures.

Yochum (1991) examined the effects of prior knowledge and text structures (description and comparison) on the recall and question performance of fifth graders. They read the passages, about which they had background knowledge and were written in descriptive or comparison structures. The researchers found that prior knowledge had a greater effect on questions performance than on recall performance and there were some effects for the comparison structure on children's recall. The researchers suggested that the effects of prior knowledge and text structures on students' reading comprehension may vary depending on the task, the information of the passages, and students' reading ability.

Miller and George (1992) created models of expository passage organizers for reading and writing, and taught these models to sixth-grade children. They found the expository structure made a significant and positive difference in both reading and writing performance. Students who used the story diagram not only were able to

comprehend and recall more information but also were more able to recall the information in an organization similar to that of the original text.

Troyer (1992) studied the effects of three types of text structures (attribution, comparison, and collection) on fifth graders' reading comprehension. The researcher did not teach text structures to children but had them read oceanography essays for approximately 20 minutes per day over the course of a week and a half. The researcher found that the collection group significantly outscored the comparison group on the immediate posttest; however, there were no significant differences among the groups at the delayed posttest.

Troyer (1994) examined the effects of three expository text structures (attribution, collection, comparison) on students' reading comprehension and writing performance. The participants were fourth, fifth, and sixth graders. Results showed that teaching text structures was effective on students' reading comprehension. Students made high scores on attribution and comparison tests than collection tests. Results of writing performance indicated that students wrote significantly better after attribution and comparison structures than after collection structures.

Dicksons, Simmons, and Kameenui (1995) reviewed the research studying the effects of expository structure on learners who were poor readers and lacked the ability of integrating and organizing what they read. The researchers indicated that expository text structures helped poor readers improve their reading comprehension.

León and Carretero (1995) created a program to improve knowledge and use of Spanish text structure as a comprehension strategy, and conducted this program twice

with high school Spanish students. In the first study, the students were trained to find title, write the elements of text structures into text structure diagram, and summarize the contents of expository texts. The results indicated that this program helped students improve their comprehension. For their second study (1995), the researchers wanted to determine whether the participants transferred their knowledge of text structures to other stories that had different structures. They found that the experimental group utilized the organizational plan in recall better than the control group. They were able to apply their knowledge to the structure of a text whose dominant rhetorical relationship and main elements had not been previously taught (the transfer of this knowledge to new situations).

Walker (1995) studied the effects of pretraining in text structures or main idea on a reading strategy, SRQ2R (survey, read, question, recite, review). The subjects were fifth-grade students and American and Its Neighbors, a social studies text, was used for instruction and testing. The students were randomly assigned to 6 groups. Group 1 received SRQ2R plus text structure instruction. Group 2 studied only SRQ2R. Group 3 studied SRQ2R plus main idea. Group 4 studied only main idea. Group 5, the control group, received no experimental instruction in text structures, main idea, or SRQ2R. Group 6 studied only text structures. The researcher found that there were no significant differences in reading ability among the six groups of students. In the immediate testing, Group 1 scored significantly higher than the other groups on reading comprehension. In the delayed testing, Group 1 and 3 performed significantly higher than the other groups.

The researcher also found that pretraining of text structures or main idea is a necessary requirement for effective use of SRQ2R.

These studies indicated that knowledge of expository text structures improved students' reading comprehension as measured by orally retelling a story that included more information correctly and in sequence, writing essays with effective organization, and writing summaries with important details. Knowledge of text structures helped students to distinguish between important and unimportant information, rearrange the details, and recall the information. Such knowledge served as a strategy for readers to employ in comprehending text (Dole, Duffy, Roehler, & Pearson, 1991; Slater & Graves, 1989).

Most of these researchers presented positive effects of knowledge of text structures on students' reading comprehension. According to sociocultural theory, students should improve learning via guiding and discussion. Many studies indicated that discussing the stories increased students' comprehension. With these evidences, teaching students to discuss the structures of stories that they read may enhance their comprehension. The researcher would like to do this study with English to speakers of other languages (ESOL) students; however, the majority of studies mentioned earlier have native speaker participants. Therefore, on the next part, the effects of discussion and knowledge of text structures on ESOL students' comprehension are discussed.

Effects of Discussion and Knowledge of Text Structures on ESOL Students

Most of the studies presented in this section have ESOL subjects who were immigrants to USA. Generally, the English proficiency of these students was not at the

same level as native speakers. Teachers of these students must be aware of the differences between these students and native students and apply appropriate learning activities for them. For example, according to Collier (1989), ESOL students who studied both their first language and second language in school take 4 to 7 years to reach native-speaker norms in academic achievement (reading, social studies, and science). On the other hand, if students (age 8 to 12) studied their first language for at least 2 years in their country and move to school providing only their second language, they would take 5 to 7 years to reach those norms in academic achievement. In addition, these students are from different cultures and languages, so teachers have to select suitable stories to teach them to read. The teacher's English should be simplified to make sure the students understand clearly (Gee, 1996; Wertsch, 1991).

Related to different cultures, Asian students are always shy to speak English, so teachers should have them study in groups and set some activities that encourage them to speak English with their friends (Long & Porter, 1985). Asian students will participate in discussion more if the teacher or the leader of the group asks them to do so. They also will talk more if they have more background knowledge about the discussed topic than other students (Bischof, 1999). Studies have indicated that learning communities, such as discussion groups, can foster communication in English (Brock & Raphael, 1994; Schwab, 1975). The members of a learning community share their experiences with each other by discussion or conversation.

Furthermore, ESOL students pay most of their attention to story details that will be tested and ignore the other details (Brock & Raphael, 1994). That is, they study

because they want to pass the test. They do not read because they want to gain knowledge or pleasure. The teachers, therefore, should provide a variety of books for students to choose to read, and teachers should carefully select interesting stories to teach students to read or allow students to choose.

Finally, ESOL students' first language has the same text structures (narrative and expository structures) as English text structures. For example, narrative text structures of Thai language comprise setting, character, problem, and solution. The expository text structures are description, compare-contrast, cause-effect, and persuasion. The problems of these students are their ability in reading and how to use knowledge of text structures in recalling the details of stories or constructing the meaning of the passages. Moreover, different types of text structures might affect students' recall. Carrell (1984) found in her study that Asian students recalled more details of stories if those stories were written in cause-effect, and problem-solution structures.

Relating to those concerns, teaching reading to ESOL students through group discussion and text structure training is challengeable. However, the following studies found discussion and text structures beneficial to ESOL learning.

Long and Porter (1985) confirmed the advantages of group work in ESOL classroom with five pedagogical arguments based on studies conducted by the researchers themselves and other researchers. First, they found that group work increased language practice opportunities. They illustrated this point with a large class of 30 students. Instead of letting one student talk while the other 29 listened, students discussed in groups of three. This provided a large amount of time for students to talk. Second,

group work improved the quality of student talk because students could engage in cohesive and coherent sequences of utterances. They did not need to hurry to answer the teacher's questions as in traditional teacher-centered classroom. Third, group work helped individualize instruction. For example, small groups of students could work on different sets of materials appropriate to their needs, while simultaneously avoiding the risk of boring other students who did not have the same problem or students who speak a different first language. Fourth, group work promoted a positive affective climate. Asian students were shy to speak English and felt stress when they were called to answer in the classroom. Group work could solve this problem because students talked in a small group. Finally, group work motivated learners. Small group discussion had been found to encourage students to learn their second language (Fitz-Gibbon & Reay, 1982; Littlejohn, 1983).

Discussion in English is a big concern of teachers who teach nonnative English-speaking students. Porter (1983) concluded that, although ESOL students could not provide each other with the accurate grammatical and sociolinguistic input, the students could offer each other real communicative practice, including the negotiation for meaning.

These studies did not investigate the effects of discussion on students' reading comprehension; however, there were some researchers who explored this scope. Those researchers found that (a) discussion improved students' reading comprehension (Carrell, 1984; Elley, 1982; Laframbois & Wynn, 1994), (b) discussion encouraged active participation (Cotterall, 1990), and (c) text structure knowledge improved ESOL students

recall (Carrell, 1984; Connor, 1984; Tang, 1991). The details of these studies are discussed below.

Elley (1982) studied the effects of the Shared Book Experience Approach on Fiji primary school children. In this approach, the teacher read a big book to children, and children were encouraged to join in discussion. The results revealed the positive effects on students' reading comprehension, word recognition, and oral sentence repetition. In the second experiment with the same method, the researcher found that the students improved in reading levels by 15 months.

Cotterall (1990) examined the effects of an interactive reading strategy training program on ESOL students' learning from English texts. The participants were four adult ESOL students participating in a preuniversity English proficiency course. The interactive reading strategy required each student to (1) clarify difficulties pertaining to a given passage, (2) locate and state the main idea of the passage, (3) summarize the content of the passage, and (4) predict the likely content of the next passage. The researcher found that all subjects benefited from interactive strategy training. The strategy encouraged active participation in reading and generalized to other materials.

Laframboise and Wynn (1994) investigated some patterns of oral participation that limited English proficiency (LEP) children (kindergartners to second graders) used during shared reading and writing experiences as well as the types of language and cognitive support that enabled LEP students to participate in group discussion and interactions. The observations revealed that talk among children was almost always topic related and showed language participation at a variety of levels. Silence did not always

signal lack of comprehension but also indicated shyness for students who were in the silent period, where they understood some of the new language but were not yet comfortable in speaking. They showed comprehension through answers to yes or no questions or selecting responses from several choices.

The studies discussed above investigated discussion, but other studies investigated the effects of knowledge of text structures on ESOL students' reading comprehension. Researchers have shown that knowledge of text structures has similar effects on ESOL students' reading to those found for native students (Carrell, 1985).

Connor (1984) compared the reading comprehension of advanced Japanese and Spanish ESOL readers to that of a group of native English readers. The researcher used an expository text with problem-solution structure and assessed students' recall immediately after reading. Connor found that the nonnative readers recalled about the same number of main ideas as the native readers, but recalled far fewer supporting ideas.

Carrell (1984) explored the effects of four different rhetorical patterns on the reading recall of advanced ESOL readers of various native language backgrounds. The researcher found that the more tightly organized patterns of comparison, causation, and problem-solution generally generated the recall of more specific ideas from a text than the more loosely organized collection of descriptive pattern. The researcher also found that the oriental group (predominantly Korean, plus a few Chinese) found the causation and problem-solution types equal, and both of these types generated recall more than the comparison and collection of descriptions, which were about equal. This study suggested that explicit instruction of text structures enhanced ESOL students' reading

comprehension. The students reacted positively to the training and expressed more confidence in themselves as ESOL readers.

Recently, Tang (1991) investigated whether teaching ESOL students to draw a tree graph to represent a text structure in social studies content facilitated student understanding of text. The researcher found that students explicitly taught to represent a text passage graphically recalled more information from the passage and had more understanding of the classification structure than did the control groups who did not draw the diagram.

These studies suggested that group discussion and knowledge of text structures facilitated ESOL students' reading comprehension. The research investigating the effects of text structure discussion was rare; thus the current study explored this area. In the next section, how teachers can manage group discussion to support social learning and enhance reading comprehension is discussed.

Group Forming

The purposes of group discussion in reading include having students brainstorm, solve problems, share their ideas, help each other, and learn from each other. Some teachers may limit the size of groups based on the number of students. For example, if there are 12 students in the class, and the teacher has students work in groups of 3, students are allowed to work in any group they like, but the membership of each group must not exceed 3 students. Some teachers may organize groups of students by their abilities or mix at different achievement levels.

For example, Dixon-Krauss (1995) matched 12 pairs of students, a more capable reader with a less capable reader and let each pair of students talk to each other about their reading or writing. Gall and Gall (1976) reminded teachers that well-formed groups increased the probability that students will choose to work together, communicate more, and feel positively about themselves and the members of their group. Hanssen (1990) suggested that each student should have adequate opportunity to participate fully in the discussions. The physical setting for discussion should also encourage students to listen carefully by looking directly at each speaker.

O' Flahaven, Stein, Wiencek, and Marks (1992) found that groups consisting of 4-8 students meet the above criteria, but 5-6 per group is an optimal and manageable size. Wiencek and O' Flahaven (1994) suggested that when forming peer groups for discussion, teachers should consider the social, interpretive, and reading abilities of each student and use the information to create heterogeneous groups. That is, each group should include a variety of students who have those characteristics. The authors rate the students' ability into three levels. For example, a Level 1 student for reading ability is the student who is unable to read or decode text independently. A Level 2 is a student who can do it independently with little difficulty, and Level 3 is a student who can read independently.

Palincsar and Brown (1988) managed group discussion in reading through the reciprocal teaching procedure using groups of 4 to 15 students with an average group size of 8. The groups were formed heterogeneously with regard to decoding skill and vocabulary knowledge. While one student took a turn to be a leader of discussion, the rest

were respondents. The authors found that this kind of grouping promoted reading comprehension, discussing ability, and learner-centered environment.

In addition, Wienczek and O' Flahaven (1994) suggested that the teacher should ask the students if the groups are acceptable to them, and the teacher can change group membership by considering instructional purposes and student choice.

Conclusion

Sociocultural theory, especially the ideas of social interaction including the ZPD and Vygotsky Space was accepted to be a potential foundation of a successful teaching method. Group discussion is a kind of social interaction in the classroom that many studies indicated to be an effective strategy to facilitate learning. In addition, the knowledge of text structures was confirmed to help students remember and recall most details of the read stories. Direct teaching of text structures, demonstrating how to discuss, and more knowledgeable peers and others assist students to succeed in reading.

Many studies claimed social interaction, discussion, and knowledge of text structures also improved ESOL students' reading comprehension. Teachers who teach ESOL students, however, have to be aware of the students' English proficiency and culture, and employ suitable activities and simplified English to those students. Due to the mentioned studies, discussing the details of stories improves students' understanding about text, and so do the knowledge of text structures. So it seems logical that discussion of text structures could help ESOL students to improve reading comprehension. Therefore, investigating the effects of text structure discussion on ESOL students' reading comprehension sounds beneficial to ESOL learning and teaching.

CHAPTER 3

METHODOLOGY

This chapter describes how this research was conducted. The following topics are discussed: (a) research design, (b) description of participants, (c) instrumentation, and (d) data analysis procedures.

Research Design

This research investigated the effects of teaching reading comprehension to ESOL adult students by having them discuss the structure of the text and details after reading the whole selection. To determine the effects, the reading comprehension posttest mean scores of students receiving this instruction were compared to the scores of another group of students who read by themselves and answered comprehension questions. The students who studied reading comprehension through discussion of text structures formed an experimental group, and the students who studied reading comprehension without discussion formed a control group.

The research design for this experimental study was Pretest-Posttest Control-Group Design (Gall, Borg, & Gall, 1996). The following procedures were conducted in this research design. First, all participants were randomly selected through the random number table in Weirsmas's (1985) book. The researcher needed at least 124 participants to earn the statistical research power = .80 if the statistical significance level (α) was set at .05 and there were 2 groups of subjects (Hinkle, Wiersma, & Jurs, 1998). In this study,

the researcher selected 126 students of the total 146 students. Each student received a number (e.g. 1, 126, 130, 146) and the student was selected if the student's number was on the random number table. After that, the 126 students were randomly assigned into 2 groups, Group 1 and Group 2. Group 1 was an experimental group and was taught reading through discussion of text structures. Group 2 was a control group and was taught reading without discussion of text structures. The 126 students received a new number (1-126) each, and were selected through the random number table again. The first 63 students were Group 1 and the rest of students were Group 2. After that the two groups of the participants were pretested by a reading comprehension standardized test, Nelson-Denny Reading Test, Form G (Brown, Fishco, & Hanna, 1993). Although this test was designed for students studying in USA, the researcher used it with these ESOL students because the researcher wanted to see the subjects' level of reading comprehension ability through a standardized test. The pretest scores indicated the same ability of those students' reading comprehension before treatment. Next, the researcher applied the treatment to the experimental group, while the control group followed nondiscussion instruction. Description of participants, instrumentation, and an example of a lesson plan are presented next.

Description of Participants

The participants of this study were 78 sophomores and 48 juniors, majoring in English and attending afternoon English classes at Rajabhat Institute Buriram, Thailand. They were recruited from 2 classes of sophomores and 2 classes of juniors. Their average age was 20. Since English was a selective class in primary, lower-secondary, and upper-

secondary schools in Thailand, the experience of learning English of these participants might be varied. The average of exposure to English was 9 years. Some students began learning English when they were kindergartners in a private school (Public kindergartners did not study English.). Generally, all students began learning English when they were fifth graders, and there was one English class in each semester. Students had a chance to practice English only in English classes because their national language is Thai. Unfortunately, they do not hear much English because most teachers speak Thai in teaching English. English Reading Classes of Rajabhat Institute are required classes for students majoring in English, but selective classes for other majors. The main purpose of the reading classes is reading for communication such as reading classified advertisements, news, labels, signs, or letters, and responding to these materials. The size of the classes is large (35-45 students). The Reading Class set for this study was not counted to the curriculum of the college. The students did not get a grade except 10 points awarded to one of the students' regular English classes. The schedules for this Reading Class were Tuesdays (experimental group) and Wednesdays (control group), at 10:00 a.m.-12:30 p.m. The intervention began in the middle of December 2000 and finished on the last day of February 2001.

Rajabhat Institute Buriram is located in the northeastern part of Thailand. It is about 220 miles from Bangkok, which is the capital city and located in the central part of Thailand. This institute used to be a teachers' college, but nowadays, the institute provides more programs such as marketing, textile, computer sciences, and tourism. The institute is no longer provided for only preservice teachers. There are 3 types of students:

morning, afternoon, and weekend students. Students are required to earn a certificate from upper-secondary schools (high schools) or equal level institutes to apply for Rajabhat Institutes. There are more than 30 Rajabhat Institutes located across the country. Generally, high school graduates who fail the public universities entrance come to study at Rajabhat Institutes. The morning students are the ones who can pass the first round of the admission exams. Most of students who cannot pass the first round take the second round and study in the afternoon classes. The majority of the weekend students are the students who have already had a job, want to earn a bachelor degree, or the students who cannot pass the first and second round of the entrance. There are 3 semesters in Rajabhat Institutes. The first semester (rainy season) begins in June and ends in the middle of October. The second semester (winter) begins in November and ends at the beginning of March. The third semester (summer) begins in March and ends in May.

The participants of this study are English majors, but they concentrate in different fields. One class of these students (44 sophomores) concentrates in teaching English and they will earn a Bachelor of Education (B. Ed.). Another class of sophomores (34 students) and 2 classes of juniors (48 students) concentrate in language arts, and they will earn a Bachelor of Arts (B.A.). These students read English newspapers, magazines, short stories, and textbooks provided in the library or a language center. Generally, they read Thai, and they read English when they are assigned to read. The Thai reading materials that they like to read are newspapers, cartoons, novels, short stories, and magazines. Their favorite English reading materials are newspapers, short stories, and textbooks. A dictionary, English-Thai or English-English, is necessary for these students. They look up

the words that they do not know the meaning of and write those down in Thai language. Most of them want to be fluent in speaking English because they want to be able to communicate with foreigners and they think good command in English can help them get a good job. Generally, their ability in listening, speaking, reading, and writing is rather low. Their achievement is classified into 5 grades: A = excellent, B = good, C = average, D = below average, and E = fail.

The next section describes the experimental and nondiscussion instructional patterns.

Instrumentation

The instrumentations used in this study are: (1) reading comprehension pretest and posttest, (2) narrative and expository selections, (3) lesson plan, and (4) questionnaire. The researcher selected the Nelson-Denny Reading Test, Form G and H (Brown, Fishco, & Hanna, 1993) to be the reading comprehension pretest and posttest because the Nelson-Denny Reading Test is a standardized test used in measuring students' comprehension ability. This test was published by the Riverside Publishing Company, USA, and was used in American schools. The test assessed the reading comprehension ability such as text structures, inferring, implication, and vocabulary knowledge of grade 9 to the fourth-year-college students. These reading abilities should be evaluated according to Barr, Blachowicz, and Sadow's (1995) work, which suggest that reading comprehension questions should cover the text structures, topic, main idea, and implicit questions (The answers of the implicit questions are not literally stated.). The test is composed of 2 parts, Part A vocabulary, 80 items, and Part B reading

comprehension, 38 items (5-multiple-choice questions). The total number of questions was 118. The comprehension questions were about humanities, social sciences, and sciences. The students did not need background knowledge of these stories. The time limit for the vocabulary and reading comprehension parts were 15 and 20 minutes respectively. The structures of the passages in the test were description (time sequence, autobiography, definition) and compare-contrast.

For the narrative and expository selections, the researcher selected Explaining in English (Holmes, 1998), which is used in Thai college and university level, articles and passages from newspapers, magazines, and reading textbooks to be reading materials. The chosen selections related to students' daily life such as jobs, sports, movies, science and technology because students may comprehend better the selections for which they have background knowledge (Ogle, 1986; Pearson & Fielding, 1991). Reading selections and types of text structures are illustrated in Table 3 below.

Table 3.

Passages and Text Structures

Week	Passages	Text structures
1	CAT	Narrative (folk tales)
2	Thai political parties	Expository (description, compare-contrast)
3	Yellow ribbon	Narrative (short love stories)
4	Thai taboos	Expository (description, classification)
5	Genetic causation of	

(table continues)

Table 3. (continued)

Week	Passages	Text structures
	homosexual	Expository (cause-effect)
6	What is the Internet?	Expository (definition)
7	Living in a condo in Bangkok	Expository (persuasion)
8	Attending Thai international universities	Expository (pro-con)
9	Tiger Woods	Expository (description, time, event)
10	The scorpion and the frog	Narrative (folk tales)

For the lesson plan, the researcher created a daily lesson plan based on elements found in Brown (1994), including (1) goals, (2) objectives, (3) materials and equipment, (4) procedures, and (5) evaluation. The procedures and steps of teaching reading through discussion of text structures, and reading without discussion of text structures are described in the next section. The researcher taught both groups of students.

Experimental Group Instruction

The steps of teaching reading to the experimental group through discussion of text structures are the following.

Prereading steps.

1. Teacher divides the students into small groups. The students decide to be a member of any group by themselves, but the number of students per group should be equal.

2. Teacher introduces the selection that students are going to read by showing them the title, author, or cover; and has them predict what the story will be about.
3. Teacher explains the meanings of new words and idioms, and explains new grammar usages.
4. (Only for the first period, the next periods, the teacher will remind them)
Teacher teaches them narrative and expository text structures, and distributing examples of both types of text structures for students to practice. Teacher demonstrates how to identify the text structures and how to discuss as well.
The discussion includes text structures and details of the stories.
5. Teacher distributes the selection to each student, and has them read silently.

During-reading steps.

6. Each student reads the whole story or passage silently.
7. Teacher helps students with vocabulary, grammars, and others if they need assistance.
8. Students discuss text structures and details of story within their group; with the teacher monitoring and helping as needed.

Postreading steps.

9. Teacher evaluates comprehension by having them answer comprehension questions by writing.
10. Teacher discusses the answers with students by having them tell how they find the answers and how the knowledge of text structures helps them.

Control Group Instruction

The followings are steps of teaching without discussion of text structures.

Prereading steps.

1. Teacher introduces the selection (the same selections as experimental group) that students are going to read by showing them the title, author, or cover of the book; and has them predict what the story will be about.
2. Teacher explains the meaning of new words and idioms, and explains new grammar usages.
3. Teacher discusses reading strategies that students like to use and suggests some more strategies.

During-reading steps.

4. Each student reads the whole story or passage silently.
5. Teacher helps students if they need assistance.

Postreading steps.

6. Teacher evaluates comprehension by having them answer the same comprehension questions as the experimental group does.
7. Teacher discusses the answers with students by having them tell how they find the answers.

The next section is an example of a lesson plan.

Lesson Plan

Time Tuesday 9th, Wednesday 10th, January, 2001, 10:00-12:30

Classroom Description

Experimental Group. There are 63 students, 36 sophomores (0 boys and 36 girls), 27 juniors (5 boys and 22 girls), plus 10 students who are not selected into the study (1 sophomores, 9 juniors). They are 14 B. Ed. and 49 B.A. students. The room is a meeting room with table and chairs that can be moved around.

Control Group. There are 63 students, 42 sophomores (4 boys and 38 girls), 21 juniors (3 boys and 18 girls), plus 10 students who are not selected into the study (4 sophomores, 6 juniors). They are 30 B. Ed. and 33 B.A. students. The classroom for this group is the same room as the experimental group.

Goal

Students should be able to understand the expository passage that they read thoroughly.

Objective

Terminal objective.

Students should be able to give short answers to the comprehension questions correctly at least 70 %.

Enabling objective.

1. Students should know the meaning of all new words.
2. Students should be able to discuss the details and story structures. (for the experimental group only)

Instructional Media

1. Explain in English, pp. 21-24
2. Paper Quiz

3. Overhead Projector

Teaching Procedures

Prereading steps. (15 minutes)

1. Teacher divides the students into 9 groups (8 each). Students decide to form their group by themselves (only the experimental group).
2. Teacher tells the students that they will read Thai Taboos today, and ask them to predict what the story will be about.
3. Teacher explains the meaning of taboo and other new words such as Buddha image, fragrant flowers, social behaviors, engaged woman, and cracked mirrors by giving 2-3 sentences with these words; or giving definitions.
4. Teacher reminds students to investigate what structures the author employed in writing Thai Taboos (experimental group only). For the control group, the teacher encourages them to apply their favorite strategy in reading.
5. Teacher tells students to read the passage 'Thai Taboos' on page 21-24 silently.

During-Reading steps. (40 minutes)

6. Each student reads the whole passage silently.
7. Teacher asks students if they need help with vocabulary, grammar, or others, and helps them if they need assistance by telling them the

strategies to construct the meaning through the board or the overhead projector.

8. Students discuss text structures and details of story within their group in English. Teacher walks around, encourages them to speak English, helps them with vocabulary, how to discuss, and what to discuss (experimental group only).

Evaluation (60 minutes)

Postreading steps.

9. Teacher distributes questions to evaluate reading comprehension.
10. Students write their answers quietly and hand in.
11. Teacher discusses the questions and answers on overhead projector, asks some students to tell how they find the answers.
12. Teacher assesses the enabling objectives on vocabulary, grammars informally through observation while the students are discussing, and from their writing answers.
13. The reading comprehension ability is evaluated through written answers.

Questions and answers.

1. How did the author tell about Thai Taboos?

Giving examples

2. How many examples of Thai taboos that the author provide?

3. What are those Thai taboos? Give 2 examples to each of them.

3.1. Taboos concerning Buddhist temples and monks.

3.1.1. One should not wear shoes inside the temple.

3.1.2. Women cannot touch a monk.

3.2. Taboos concerning the social behaviors of women.

3.2.1. A woman should not show interest in a man first.

3.2.2. A woman should not be affectionate to a man in public.

3.3. Taboos concerning home.

3.3.1. One should not wear shoes or hats in a house.

3.3.2. Do not sit or put your feet on a pillow.

3.4. Taboos concerning general behaviors

3.4.1. Never point at or push anything with your feet.

3.4.2. Never touch the top of anyone's head.

3.5. Taboo concerning elders.

3.5.1. Never show them disrespect.

3.5.1. Never argue with or scold at older people.

4. What did most of Thai taboos relate to?

Religious, culture, and beliefs

Extra Activity (35 minutes)

1. Teacher has students write one page or more of an expository essay about Thai Taboos that should still be prohibited to do nowadays and Thai taboos

that should not be prohibited any longer. Students should give the clear reasons.

2. After finish writing, each student finds a partner to share the writing.

Concerning the questionnaire, this research instrument was used instead of interview to find out what they like to read, their reading strategies, and teaching reading strategies that they like (see Appendix B). The data from the questionnaire was used to discuss the results of the study.

Data Analysis Procedure

This experimental study was guided by a null hypothesis (H_0) and an alternative hypothesis (H_a). The null hypothesis held that the reading comprehension scores of students who learn reading through discussion of text structures were not significantly different from the students who read by themselves ($H_0: \mu_1 - \mu_2 = 0$). If the null hypothesis was false, the alternative hypothesis would be accepted. The alternative hypothesis assumed that ESOL students who learned to comprehend written selections through discussion of text structures would achieve higher scores on posttest of reading comprehension than ESOL students who read silently and answer the posttest questions ($H_a: \mu_1 - \mu_2 > 0$).

On the first week of the study, the two groups of participants were pretested with the Nelson-Denny Reading Test, Form G. The pretest mean scores of both groups of students were compared to see the reading comprehension ability of them before the intervention. The Independent-Samples t Test was used to test the null hypothesis. The Independent-Samples t Test was a suitable statistic used to compare the two means of

different groups who received different treatments (Pavkov & Pierce, 1998, Einspruch, 1998). The level of statistical significant difference (α) was set at .05. That is, the probability of rejecting the null hypothesis when exactly the two means are not different was less than .05 from 1.00.

After the pretest, the researcher taught both groups. When the intervention was completed (10 weeks), the participants were posttested with the Nelson-Denny Reading Test, Form H. The posttest mean scores of the students were analyzed to see the effects of the intervention. The analysis of covariance (ANCOVA) was proposed to be applied in analyzing. The researcher proposed to use ANCOVA because ANCOVA can increase the precision of the research results by partitioning out the variation attributed to the covariate (Hinkle, Wiersma, & Jurs, 1998). If the reading comprehension scores of the experimental students were higher than the control students, the researcher could posit that the effect was from the intervention, not from other variables.

In this study, the dependent variable was posttest scores, the independent variables were the two reading teaching methods (reading through discussion of text structures, and reading without discussion of text structures), and the covariate was pretest scores. The null hypothesis was set against the alternative hypothesis again, and the level of statistical significance was also set at .05. After analyzing the data with ANCOVA, the F test was utilized to indicate the statistical significance of the hypotheses. However, before employing ANCOVA, the researcher had to test the homogeneity of regression. The homogeneity of regression assumes that the regression lines of the pretest and posttest scores of both groups must be paralleled. If this

assumption is violated, the ANCOVA should not be conducted (Loftin & Madison, 1991; Hinkle, Wiersma, & Jurs, 1998), because it implied that there was an interaction between the covariate and the treatment, or the relationship between the dependent variable (posttest scores) and the covariate (pretest scores) was nonlinear. After conducting the test of homogeneity of regression, the researcher found that, the hypothesis was violated, therefore, the researcher applied a t test to compare the posttest means and test the research hypotheses.

Conclusion

This experimental study was a Pretest-Posttest Control-Group Design, which had the goal to investigate the effects of teaching reading comprehension through discussion of text structures by comparing to the effects of teaching reading without discussion of text structures. The subjects of this study were ESOL Thai sophomores and juniors, majoring in English and attending afternoon English classes at Rajabhat Institute Buriram, Thailand. The intervention took 10 weeks (30 periods, 50 minutes each) and was administered by the researcher. Nelson-Denny Reading Test was selected to pretest and posttest the students' reading comprehension achievement. The scores of students were analyzed by using Independent-Samples t Test to indicate the statistical significance. The null hypothesis of this study was there was no difference in reading comprehension achievement of students who read through discussion of text structures and of students who do not read through the discussion, while the alternative hypothesis was the reading comprehension achievement of students who read through discussion of text structures was better than the reading achievement of the students who do not read

through discussion. The criterion level for determining statistical significance for these two hypotheses is the 95% confidence level ($p < .05$).

The data analyzing, which includes comparing pretest and posttest mean scores, research hypotheses testing, and the findings, are presented in the next chapter.

CHAPTER 4

DATA ANALYSIS

Introduction

After the dissertation proposal had been approved by the University of North Texas Review Board, and the request for conducting the study had been allowed by the rector of the Rajabhat Institute Buriram, the researcher went to Buriram, Thailand to conduct the study. The researcher met the Head of the Foreign Language Program and was informed that the researcher had to establish new classes for this project and conduct the treatment by himself because teachers and all classes there were on their schedules. The students who would participate in the treatment were sophomores and juniors, majoring in English and attending afternoon English classes. Their regular classes ran from 2: 40 p.m.- 8:00 p.m. Therefore, for this study, the intervention was scheduled in the morning.

The researcher met all 146 students, told them about the research, and asked for their consent. After learning the benefits and risks, all of the students filled in the consent form (see Appendix A). Later, the researcher gave each student a number beginning from 1-146, and used the random table in Wiersma's (1985) book to select the samples. The researcher needed only 124 participants to earn the statistical power = .80 (Hinkle, Wiersma, & Jurs, 1998) for the research. However, for this study, the researcher selected 126 students. The rest of the students (number 127-146) also participated in the treatment,

but their scores were not analyzed. Later, a second random assignment to groups was pursued through the same random table. The first half of the 126 students included 36 sophomores (0 boys and 36 girls) and 27 juniors (5 boys and 22 girls), and they were assigned to the experimental group and were taught by discussion of text structures, while the second half of students, comprised of 42 sophomores (4 boys and 38 girls) and 21 juniors (3 boys and 18 girls), were assigned to the control group and were taught without discussion of text structures.

The daily class activities of the two groups were similar, except the control group did not study text structures and did not discuss the story in small groups. The participants' activities were arranged into 3 steps: Prereading, During-Reading, and Postreading Step. Both groups of students predicted the details of the story and learned new vocabulary and grammar in the Prereading stage. The experimental group read and discussed text structures and details of story in During-Reading stage, while the control group read the story silently. In Postreading stage, both groups of students wrote the answers for reading comprehension questions. After the written response, both groups of the students discussed the answers with the teacher and told how they found the answers.

After the two classes were established, the schedules were arranged. The experimental group studied on Tuesdays, 10:00 a.m. - 12:30 p.m. (3- fifty-minute periods), and the control group studied on Wednesdays at the same time. The intervention started on December 12, 2000 and finished on February 28, 2001 (12 weeks). The first week was for pretest, the second to the eleventh weeks were for teaching, and the twelfth

week was for the posttest. In the next section, the discussion for the pretest, intervention, posttest, and conclusion are presented.

Pretest

The two groups of students were pretested during their first week to evaluate their reading comprehension ability before the treatment. A standardized test, the Nelson-Denny Reading Test, Form G (Brown, Fishco, & Hanna, 1993), was used for the pretest. This test assessed the reading comprehension ability of Grade 9 to the fourth-year – college students. The test was published by the Riverside Publishing Company, USA, and was used in American schools. The test was composed of 2 parts: Part A, vocabulary, 80 items and Part B, reading comprehension, 38 items. The total number of questions is 118. The questions included items about humanities, social sciences, and sciences. The time limit for the vocabulary and reading comprehension parts were 15 and 20 minutes respectively. Table 4 below shows the means, standard deviations, and standard error of the mean of the two groups.

Table 4.

Means, Standard Deviations, and Standard Error of Pretest Scores

Group	<u>n</u>	<u>M</u>	<u>SD</u>	<u>SE</u>
Experimental	63	28.22	5.15	.65
Control	63	28.49	6.64	.84

To compare these two means (28.22, 28.49), the null hypothesis (H_0) and the non-directional alternative (H_a) hypothesis were set, and a t test was used to test these hypotheses.

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_a: \mu_1 - \mu_2 \neq 0$$

The null hypothesis assumed that the pretest mean scores of the two groups were not different. This hypothesis was tested against the non-directional alternative hypothesis that assumed the mean score of the experimental group was different from the control group's. The level of significance (α) for testing these hypotheses was set at .05. That is, if the null hypothesis was rejected, the non-directional alternative hypothesis would be accepted, and the probability that a difference in sample means would have occurred by chance if $\mu_1 - \mu_2 = 0$ was less than .05. The level of significance was not set at .01 because the probability of retaining the null hypothesis when exactly the two means were different would be so high.

The following were criteria for rejecting the null hypothesis. (1) The two independent samples were randomly selected from all sophomores and juniors majoring in English, and attending afternoon English classes. (2) The experimental group mean (\bar{M}_1) from population 1 reflected the mean of population 1 (μ_1) and sampling error. (3) The control group mean (\bar{M}_2) from population 2 reflected the mean of population 2 (μ_2) and sampling error. (4) The homogeneity of variance $\sigma_1^2 = \sigma_2^2$ was assumed. (5) The sampling distribution for the difference between two means was the Student's t

distribution when $\sigma_1^2 = \sigma_2^2$ (population variances) were estimated using s_1^2 and s_2^2 (sample variances), and the common variance of the populations (σ^2) was estimated using the pooled estimate s^2 .

The t distribution was a family of symmetric, bell-shaped distribution. The t distribution will increase approximately the normal distribution as the sample size increases (Hinkle, Wiersma, & Jurs, 1998), and Student t distribution was developed by Student, which is the pen name of William S. Gosset. He developed a general formula for t distribution and his work was published in 1926. (6) The degrees of freedom for t distribution in this study are $n_1 + n_2 - 2$ ($63 + 63 - 2 = 124$). Table 5 below shows the result for testing these hypotheses.

Table 5.

The t Test for Equality of Pretest Means

The t test for equality of means			
t	df	Significant (2-tailed)	Mean difference
-.255	124	.799	-.27

From Table 5, the difference of the two means, $-.27$, is from 28.22 - 28.49 . The t value, $-.255$ is used for this study because the assumption of homogeneity of variance ($H_0: \sigma_1^2 = \sigma_2^2$), was met. That is, the variances of the samples were equal. The level of significance, $.799$, was greater than the set value ($.05$). The probability of rejecting the null hypothesis when it is true is greater than $.05$. Therefore, the null hypothesis is not rejected. That is, the means of the students' pretest scores were not different. The

researcher concluded that the reading comprehension ability of these two groups of samples was not different from each other before the treatment.

Intervention

After the pretest, the researcher taught reading comprehension to both groups of students. The experimental group was taught reading through discussion of text structures, while the control group was taught reading without discussion of text structures. The stories that the students read were 3 narrative stories and 7 expository stories, and they were selected from Explaining in English (Holmes, 1998), a textbook used at Thai college level, passages from newspapers, and other sources. All of the stories were new for the students, but the students had some background knowledge about them. Expository stories were read more than narrative stories because the students were college students. The teaching was composed of three stages: Prereading, During-Reading, and Postreading Stage.

At the Prereading stage, the teacher (the researcher) distributed the story to students and told them to scan for vocabulary or grammar that they had not learned before. After that, the teacher taught those new words and grammar by having them predict the meaning from context clues, or giving them more examples. Another activity that students did was predicting the plot of the story. After the students predicted the story, the teacher taught the experimental group the structures of the story and how to apply the structures to recall the details of the story. Structures of stories were taught to the experimental group only in the first period of the intervention. The next periods, the

researcher let them read and discuss details and text structures, and the researcher helped them if they needed.

At the During-Reading stage, the teacher told the experimental group to form groups of eight, read the story, and discuss the meaning of the story in English by using the text structures in constructing the meaning. For example, when students read the story Thai Taboo, they discussed what the author classified as Thai taboo, examples of taboos in each category, and why these were considered taboos. While they were discussing, the teacher walked around, encouraged them to speak English, and helped them with vocabulary or grammar if they needed. The control group, on the other hand, read by themselves silently.

At Postreading Stage, the teacher gave them questions about the story, and both groups of students wrote a short answer to each question. These questions evaluated the students' recall and reading comprehension. The questions asked about structures of stories, main idea, and supporting details such as "What are the policies of these two Thai political parties?", "How did the author present the policies of the two parties?", or "Compare and contrast their policies on Thai education". After they finished answering the questions, both groups of students discussed with teacher the answers of each question and how they found the answers.

The researcher graded the students' writing answers after each story and gave the feedback to the students. Each correct answer was awarded 1 point and 0 was for incorrect answer. The researcher found that the students' ability in answering the questions was not different. In addition, the researcher recorded their learning behaviors,

and surveyed their ideas upon reading through discussion of text structures and reading without discussion of text structures (see Appendix B) before the treatment ended. The treatment lasted 10 weeks (30-fifty-minute periods). On the 12th week, both groups of students were posttested with the Nelson-Denny Reading Test, Form H. This test is composed of 2 subtests, vocabulary and reading comprehension. The number of items, answer choices, categories of subjects, and time limit are the same as Form G. The following section presents the result of the posttests.

Posttest

Table 6 presents the means, standard deviations, and standard error of posttest reading scores of these two groups.

Table 6.

Means, Standard Deviations, and Standard Error of Posttest Scores

Group	<u>n</u>	<u>M</u>	<u>SD</u>	<u>SE</u>
Experimental	63	28.51	6.0	.78
Control	63	28.78	4.87	.61
Total	126	28.64	5.47	.49

Table 6 shows that the experimental group had an average score of 28.51, and the control group had an average score of 28.78. The difference was only .27. To test whether this difference of the means was statistically different or not, a t test was used to test the hypotheses. The hypotheses were: (1) the mean scores of reading comprehension of these two groups of students were not different, (H₀: $\mu_1 - \mu_2 = 0$), (2) the mean score of the

experimental group was higher than the mean score of the control group ($H_a: \mu_1 - \mu_2 > 0$).

The level of significance for testing these hypotheses was set at .05. The results are shown in Table 7.

Table 7.

The t Test for Equality of Posttest Means

The t test for equality of means			
t	df	Significant (2-tailed)	Mean difference
-.276	124	.783	-.27

From Table 7, the difference of the two means, -.27, is from 28.51-28.78. The t value, -.276, is used for this test because the homogeneity of variance assumption ($H_0: \sigma_1^2 = \sigma_2^2$), was confirmed. That is, the variances of the two groups of students were equal. The level of significance, .783, was greater than the set level (.05). The probability of rejecting the null hypothesis when it was true was greater than .05. Therefore, the null hypothesis was not rejected. That is, the means of the students' posttest scores were not different. The researcher concluded that the reading comprehension ability of these two groups of samples were not different from each other after the treatment.

The researcher proposed to use Analysis of Covariance (ANCOVA) to test these hypotheses and to show that the results of the posttest emanated from the treatments, not from some other variables. Pretest scores would be used as a covariant because the relationship should be linear with the dependent variable (posttest). The covariance would partition the extraneous variable out of the treatment (Hinkle, Wiersma, & Jurs, 1998).

Moreover, before using ANCOVA, the assumption of homogeneity of regression must be met. That is, the regression lines of pretest scores of both groups are assumed to be parallel. If this assumption is violated, the ANCOVA should not be conducted (Loftin & Madison, 1991; Wiersma, Hinkle, & Jurs, 1998). For testing the homogeneity of regression, the following hypotheses were set.

$$H_0: \beta_1 - \beta_2 = 0$$

$$H_a: \beta_1 - \beta_2 > 0$$

The β_1 and β_2 were the population regression coefficients for the two groups. The level of statistical significance was set at .05. The results of this test are shown in Table 8.

Table 8.

The Test of Homogeneity of Regression

Dependent Variable: Posttest

Source	Type III sum of square	df	Mean squares	F	Sig	Partial Eta square
Corrected						
model	487.793 ^b	3	162.598	6.094	.001*	.130
Intercept	2021.929	1	2021.929	75.443	.001*	.382
PRE	364.128	1	364.128	13.647	.000*	.101
Group	235.766	1	235.766	8.836	.004*	.068
Group*PRE	238.112	1	238.112	8.924	.003*	.068

(table continues)

Table 8. (continued)

Source	Type III sum of square	df	Mean square	F	Sig	Partial Eta square
Error	3235.135	122	26.681			
Total	107115.000	126				
Corrected total	3742.929	125				

Note. PRE = pretest. Group = Both groups of students' scores. Sig = Significance

* $p < .05$

From Table 8, the homogeneity of regression between the two groups of students (Group) and pretest (PRE) is statistically significant at .003. This suggested the regression lines of the groups and pretest scores were not parallel. There were some interactions between pretest and teaching. The homogeneity of regression assumption was violated; therefore, ANCOVA could not be used to show the precision of the posttest scores. In this case, the t test was appropriate to test the equality of the two means (Pavkov & Pierce, 1998; Einspruch, 1998). The result of comparing the posttests with the t test can be seen in Table 7. Moreover, when looking at the difference between the means of the pretests and the posttests of both groups at Table 4 and 6, it was found that the experimental group earned .29 ($28.51 - 28.22 = .29$) more mean score from the pretest, and so did the control group ($28.78 - 28.49 = .29$).

Conclusion

The purpose of this study was to investigate the effects of teaching reading through discussion of text structures. The researcher compared this reading method with teaching reading without discussion of text structures. The ESOL subjects were randomly sampled and randomly assigned to an experimental group taught by discussion and to a control group taught without discussion. The hypothesis for this study was the reading comprehension ability of students taught through discussion would be higher than students taught without discussion. The reading comprehension abilities of these two groups were tested before the treatment by a form of the Nelson-Denny Reading Test. The means of the pretest scores were compared and tested by Independent-Samples *t* Test. It was found that the reading abilities of each group before the treatment were not different. After the intervention, reading comprehension abilities were tested again by using another form of the Nelson-Denny Reading Test. The results showed that the reading comprehension ability was not statistically significant different between the two groups. This suggests that the discussion method was not more effective than without discussion method. The discussion and suggestions of the research results are presented in the next chapter.

CHAPTER 5

DISCUSSION

The researcher wanted to find out whether teaching reading through discussion of text structures is more effective than teaching reading without discussion of text structures on adult ESOL students' reading comprehension. After conducting the 10-week experimental study, the researcher found that teaching reading through discussion of text structures was not more effective than teaching reading without discussion of text structures. In this chapter, the researcher discusses why these two reading teaching strategies did not give different effects. Resolutions and suggestions for further research, contributions, and conclusions are also presented.

Discussion of the Results

Teaching reading through discussion of text structures is comprised of 2 theoretical issues, discussion and text structures. These two elements were claimed to enhance language learning including reading comprehension. Discussion with peers helps students learn from them, and the students form their own knowledge (Almasi, 1996; Au, 1998; Gee, 1996; Raphael & McMahon, 1994; Vygotsky, 1978). These beliefs are based on sociocultural theory. These researchers believe that reading will be improved if it is done in the form of social activities. Another element, knowledge of text structures is a schema that helps students recall the details of the story and writing (Armbruster, Anderson, & Ostertag, 1987; Anderson & Pearson, 1984; Dickson, Simmons, &

Kameenui, 1995; Pearson & Fielding, 1991; Miller & George, 1992; Troyer, 1994; Walker, 1995; Yochum, 1991). If students are aware of the writers' intention in writing, they could comprehend the stories correctly (Smith, 1983; Stosky, 1983). With these 2 crucial factors, the researcher expected teaching reading through having students discuss details of stories and text structures would be more effective than having students read by themselves without discussing with their friends.

The first probability that made the two methods of teaching reading yield no different results was the time. This study began in the middle of December 2000 and ended on the last day of February 2001. It included the New Year holiday. New Year 2001 in Thailand was a special event because this year the government organized the general election on the first weekend of January and allowed 5 consecutive days for the New Year celebration. People who were 18 years old had their first experience to vote in this election (Before this, they must be 20 years old.). Moreover, the last week of February was the final week of these participants too. With these events, the students might not have paid full attention to cooperate in the study. In contrast, they might have looked forward to the holidays, gone to vote, and concentrated on their final exams. Gall, Borg, and Gall (1996) suggested that researchers do not extend experimental treatments beyond the Christmas holiday. With holidays and important events like these, ten weeks for intervention might be too short to see the effects of teaching.

Text structures instruction or strategy instruction was extremely time consuming and the effects often took months to yield (Dole, Brown, & Trathen, 1996; Harris & Pressley, 1991; Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1989; Roehler, 1991).

In this study, the researcher taught text structures to the experimental group only during the first period of the intervention, and this might have been an inadequate time.

The second probability might be motivation. These participants enrolled in this reading class, which was not counted in their curriculum and degree plan. The benefits that they received were only how to read better, and 10 points were awarded to one of their English classes. With this small amount of the motivation, some students did not participate in all 30-fifty-minute periods. They spent the time preparing for their regular classes' quizzes. Research indicated that motivation greatly influenced ESOL students desire to learn language and to utilize strategies (Oxford & Nyikos, 1989; O'Malley & Chamot, 1990).

Furthermore, the participants might have lacked motivation in speaking English. In their daily life, the participants of this study spoke Thai, which is their national language. They had a few chances to speak English. Those chances were speaking with their native speakers of English instructors in some of their English classes. When the researcher told them to discuss in English, they were shy and were not eager to do so. However, when they answered the questionnaire asking whether they like to talk with their friends in English. 64 % replied "Yes", and 24 % answered "No". The 24 % wrote that they were not sure about their grammar, lacked self-confidence, their friends did not speak English with them, and they did not like to speak English. 1 % thought speaking English to their friends was weird.

Related to motivation, the third probability might be learning styles. These participants have studied English for more than 10 years. They may have developed a

favorite style in reading comprehension. From the survey questions about how they read, the majority of the students (67 %) answered they read sentence by sentence, looked up meanings in a dictionary when they found new words, and read the whole passage again. They scanned slowly to understand as much as they could before they answered the comprehension questions. 15 % read only the first and last paragraph and used a dictionary. 8 % looked for topic, main idea, or text structures, and 8 % read and translated into their first language. Most of them (37 %) wanted the teacher to teach reading by asking questions during reading. 21 % wanted to read and discuss with friends, and 20 % wanted the teacher to read and translate sentence by sentence for them. 45 % believed that knowing the meaning of all vocabulary in the passage helped them understand reading most. 24 % believed that knowing structures of stories helped them most.

Dole, Brown, and Trathen (1996) found that some students would apply a new strategy in reading when they found that that strategy helped them in reading. Other students believed in their strategies and rejected the offered new ones. Dickson, Simmons, and Kameenui (1995) found that some students would try a new strategy when that strategy interested them, and they had some background knowledge of that strategy. For this study, the experimental students might not employ knowledge of text structures when they answered comprehension questions but used their own reading strategies.

A fourth explanation for the findings was that the selections might not have interested these participants. From the survey, the majority of the students (61 %) liked to read English newspapers, 24 % liked to read short stories, and 9 % liked to read textbooks. The structures of stories in newspapers are different from the selections that

they read. Dickson, Simmons, and Kameenui (1995) suggested that students' background knowledge, degrees of interest, skills, and deficiencies can affect students' learning.

Finally, students' similar reading comprehension abilities might make the two methods, teaching reading through discussion of text structures and without discussion of text structures, not different from each other. The average pretest scores of the two groups of students were 28.22 and 28.49 from the total raw score = 156, which is the first percentile rank. With this reading ability, they might need more direct teaching on text structures and how to discuss in English with friends and teachers. Even though they know text structures in their first language, they may not be able to apply that knowledge to the second language efficiently. This might be because their knowledge of vocabulary, grammar, listening, speaking, and reading in second language was inadequate. The results of the Nelson-Denny Reading Test showed that the grade equivalence for these participants was Grade 4. Thus, the reading selections and the standardized test chosen for the study might be too difficult for these students. Bellows (1994) asserted that if adolescents lacked fluency or lacked prior knowledge, the knowledge of text structures did not help the comprehension and distracted from the available cognitive processing energy.

The solutions and suggestions for further research are discussed in the following section.

Resolutions and Recommendations

After 10 weeks of the intervention, the two groups of students increased in comprehension ability to approximately the same level. This amount was very small, .29

points (experimental: $28.51 - 28.22 = .29$, control: $28.78 - 28.49 = .29$). One suggested reason for the small amount of growth could be that time was too short for the methods to generate the effects. Therefore, if someone wanted to do a replication of this study in a Thai college, a longer intervention time should be set, perhaps a whole semester. A suggested time is the first semester, which begins in June and ends in the middle of October. This semester does not cover the big holiday like New Year or Songkran.

In addition, the researcher should take over a regular reading class rather than set up a special class. This will motivate students to pay attention to the study because their grade and course will be counted into their degree plans. Moreover, further research might include other independent variables such as degrees and years. For example, the participants in the current study were English majors; but some concentrated on teaching English, and they would earn Bachelor of Education (B. Ed.), while the others concentrated on general English and they would earn Bachelor of Arts (B. A.). The researcher might compare the reading comprehension ability of B. Ed. and B. A. students, who were taught through those two methods. Furthermore, the comparison of reading comprehension ability between the freshmen and sophomores, or sophomores and seniors might be interesting too.

To address this issue, all teachers who teach English might set a rule, English Only, in English class. Teachers should teach in English and encourage students to communicate in English. Teachers need to point out the usefulness of English in today's world and show students that learning English will be effective only in an English-speaking environment. However, for book discussion, if the students cannot discuss in

English, teachers might allow them discuss in their native language first. When they understand the story clearly from discussing in their language, the teachers might guide them how to discuss in English and tell them to discuss again in English.

Future researchers should ensure that the teacher teaches text structures in every class period to demonstrate the benefit of text structures knowledge, how to draw graphic organizers, and how to discuss the story using text structures. Since 61 % of the participants liked to read newspapers, the teacher may take news and articles from a newspaper to teach reading and text structures. By reading these things, the teacher would give the students sufficient practice with text structures.

The resolution for addressing learning styles is very crucial, and it is one of the main learning objectives of Thai education. The learner-centered classroom is the focus now of Thai classrooms; however, for the groups of students in this study, most of them (37 %) preferred a teacher-centered classroom. Their reasons for this preference were varied: (1) teachers know more than students, (2) teachers know the correct answers, (3) the students lacked self-confidence in English, and (4) the students did not think they would learn more by themselves or with friends. The best way to teach these students is to encourage them to learn by themselves and from their friends first. Then the teacher can elaborate more on the things that they have learned. For example, after the students discuss text structures in small groups, the teacher asks each group to present its task in front of the class. The teacher may elaborate if necessary. In this way the teacher can motivate a learner-centered classroom. Most of all, the teacher must provide them knowledge of vocabulary, grammar, text structures, and how to discuss.

The English capacity of the group of students in this study was low. They would have benefited from practice every day. Teachers, themselves, must be qualified in English and provide effective teaching and effective strategies for students. A researcher who wants to study ESOL students' reading English capacity in the future may select less difficult passages and standardized tests (may be ESOL standardized tests) for the study. The librarians must prepare enough materials for them to learn English such as books, journals, newspapers, computers, televisions, and videos. In addition, native-speaking instructors are the important resources for English learning too.

The contributions of this study is described in the following section.

Contributions

This study is a Pretest-Posttest Control-Group Design. The researcher investigated the effects of a reading aided by discussion of text structures on the reading comprehension of Thai students who read English texts. However, this method gave no different results from a conventional method in which students read silently by themselves without discussion. Although the research revealed no significant effects of the method, the study revealed crucial pictures of Thai college students. First, the English reading ability of Thai students majoring in English is low. Their grade equivalence to students studying in the USA is Grade 4. Secondly, these students lacked self-confidence in English. They still wanted the teacher to take a major role in the classrooms. Third, these students needed intensive practice in all 4 language arts skills: listening, speaking, reading, and writing. The students preparing to be teachers also needed more practice in

teaching skills. Fourth, English-speaking teachers are needed, and fifth, the effective and adequate books, and other learning materials are required.

This study implied that preservice English teachers must be fluent in English and good at teaching. The admission scores on English test to a college must be raised. The in-service English teachers must be frequently refreshed in their English skills and must have good command of English also. In addition to English capacity, teaching methods or strategies, and how to do classroom research are important issues that in-service teachers should be trained because these knowledge may help them teach effectively and may help their students improve in English.

Conclusion

The researcher wanted to find out whether teaching reading through discussion of text structures is more effective than teaching reading without discussion of text structures. Therefore, the purpose was to investigate the effects of teaching reading through discussion of text structures. Pretest-Posttest Control-Group Design was the research design of this study. The subjects of the research were 126 sophomores and juniors enrolled in a Thai- 4-year college and majoring in English. Half of the students were randomly assigned to the experimental group, another half were assigned to the control group. The experimental group was taught reading through discussion of text structures, while the control group was taught without discussion of text structures. The intervention was 10 weeks from December 2000 through February 2001. The Nelson-Denny Reading Test, Form G and H, were used to pretest and posttest the students' reading comprehension ability. The posttest mean scores of the two groups were

compared, and a t test was used to test the significance of difference of the two means.

The null hypothesis ($H_0: \mu_1 - \mu_2 = 0$) was tested against a directional alternative hypothesis ($H_a: \mu_1 - \mu_2 > 0$). The significance level (α) was set at .05.

The analysis indicated that the reading comprehension ability of students taught reading through discussion of text structures was not different from the ability of students taught reading without discussion of text structures. The results may have been influenced by the short time of the intervention, motivation of the study, students' learning styles, or students' ability in reading. The resolutions and suggestions for further research were to fulfill the lack or inappropriateness in those needs. Although the effects of the proposed reading method were not found to be significant, the researcher found that the students liked to read and discuss with their friends more than reading by themselves. In addition, the study revealed the pictures of Thai college students and the ways to improve English teaching for speakers of Thai.

APPENDIX A
CONSENT FORM

Use of Human Subjects

Consent Form

Name of participant:

I hereby give consent to Mr. Surachai Piyanukool, a doctoral student majoring in Reading Education, Department of teacher Education and Administration, University of North Texas (U. S. Phone: 940/387-9219; Thailand: 044/622-058) to perform the following investigational procedures:

1. Teaching me English reading comprehension in Reading English Class 3 hours per week for 10 weeks during 1 December 2000 to 28 February 2001 (total = 30 hours).
2. Test my reading comprehension ability.
3. Use my reading scores in his dissertation.

I have heard and understood the nature of the study and the attendant discomforts or risks involved. I have heard and understood the benefits to be expected are (1) I will learn how to read English effectively, and (2) my reading comprehension ability may be approved. The risks involved in this study are unknown. Mr. Surachai Piyanukool will not reveal my name and individual reading scores in his dissertation. I understand that Mr. Surachai Piyanukool will take a role as one of my reading teacher during the experiment, and that I may withdraw my consent at anytime without prejudice or penalty. With my understanding of this, having received this information and satisfactory answers to the questions I have asked, I voluntarily consent to the procedures or treatments designated in paragraph 1 above.

..... (Date)

Signed: Signed:

(Witness)

(Participant)

Signed:

(Witness)

Faculty Sponsor's Name: Diane D. Allen, Ed. D. Associate Dean for Outreach, Research,
and Professional Development, College of Education, Tel. (940) 565-2121

This project has been received and approved by the UNT Committee for the Protection of
Human Subjects (940/ 565-3940)

(Keep a copy of this for your record)

APPROVED BY THE UNT IRB

FROM 10/30/00 TO 10/29/01

APPENDIX B
QUESTIONNAIRE

Questionnaire

Directions: Answer the following issues by putting an X in front of the desired answers and/or write short answer into the blank provided.

1. Sex:a) Maleb) Female
2. Age: Years
3. Class:a) 2 Year B. Ed.b) 2 Year B. A.
.....c) 3 Year B. A. Group 1d) 3 Year B. A. Group 2
4. Start learning English:a) Kindergartenb) Grade 5c) Others
5. Years of studying English:Years
6. I(a) like English,(b) do not like English
because.....
7. I chose English to be my major because.....
.....
8. I like to learna) Listening-Speakingb) Readingc) Writing
.....d) All skills
because.....
9. How often do you read English?
10. I like to read
Thai:
English:
11. What is your style in reading?
.....

12. Do you like to read English and discuss with your friends in English in a Reading Class?

.....a) Yes b) No

Because.....

13. Which one do you like most? (Choose only one answer.)

.....a) Teacher asks questions about story and students answer.

.....b) Teacher reads and translates sentence by sentence.

.....c) Students read, use dictionary, and answer reading comprehensions.

.....d) Students read and discuss with friends.

Because.....

14. Which one helps you to understand reading most? (Choose only one answer.)

.....a) Knowing all vocabulary

.....b) Knowing all grammars

.....c) Knowing structures of stories such as cause-effect, compare-contrast, main idea, supporting details, characters, setting etc.

.....d) Others (Specify).....

15. What languages do you like to speak and listen to in English classes?

.....a) English only because.....

.....b) English and Thai because.....

Thank You Very Much

References

- Aebersold, J. A., & Field, M. L. (Eds.). (1997). From reader to reading teacher issues and strategies for second language classrooms (pp. 21-34). Cambridge: Cambridge University Press.
- Almasi, J. F. (1994). The effects of peer-led and teacher-led discussions of literature on fourth graders' sociocognitive conflicts. In C. K. Kinzer & D. J. Leu (Eds.), Multi dimensional aspects of literacy research, theory, and practice (pp. 40-59). Forty-Third Yearbook of the National Reading Conference. Chicago, IL: National Reading Conference.
- Almasi, J. F. (1995). The nature of fourth graders' sociocognitive conflicts in peer-led and teacher-led discussions of literature. Reading Research Quarterly, 30, 314-351.
- Almasi, J. F. (1996). A new view of discussion. In L. B. Gambrell & J. F. Almasi (Eds.), Lively discussions! Fostering engaged reading (pp. 2-24). Newark, DE: International Reading Association.
- Anderson, R., & Pearson, P. D. (1984). A schema-theoretic view of basic process in reading. In P. D. Pearson (Ed.), Handbook of reading research (pp. 255-292). New York: Longman.
- Armbruster, B. B., Anderson, T. H., & Ostertag, J. (1987). Does text structure/ summarization instruction facilitate learning from expository text? Reading Research Quarterly, 22, 331-346.

Au, K. H. (1997). A sociocultural model of reading instruction: The Kamehameha Elementary Program. In S. A. Stahl & D. A. Hayes (Eds.). Instructional model in reading (pp.181-202). Mahwah, NJ: Lawrence Erlbaum Association, Publishers.

Au, K. H. (1998). Social constructivism and the school literacy learning of students of diverse backgrounds. Journal of Literacy Research, 30, 298-319.

Barnes, D. (1975). From communication to curriculum. NY: Penguin.

Barr, R., Blachowicz, C. L. Z., & Sadow, M. W. (1995). Reading diagnosis for teachers: An instructional approach. White Plains, NY: Longman Publishers.

Bellows, B. P. (1994). Does knowing about text structures help disabled adolescent readers? An exploratory study of adolescents' awareness and use of global coherence. Paper presented at the Annual Meeting of the National Reading Conference, San Diego, CA. (ERIC Document Reproduction Service No. ED 380 755)

Bischof, J. C. (1999). Thais taking turns: How Thais participate in group work in the American classroom. Unpublished master's thesis, University of North Texas, Texas. (University Microfilms No. 7600)

Block, E. L. (1992). See how they read: Comprehension monitoring of L1 and L2 readers. TESOL Quarterly, 26, 319-343.

Braun, C., & Gordon, C. J. (1984). Writing instruction as a metatextual aid to story schema applications. In J. A. Niles & L. A. Harris (Eds.), Changing perspectives on research in reading/ language processing and instruction (pp. 61-65). Thirty-Third Yearbook of the National Reading conference. Chicago, IL: National Reading Conference.

Brennan, A. D., Bridge, C. A., & Winograd, P. N. (1986). The effects of structural variation on children's recall of basal reader stories. Reading Research Quarterly, 21, 91-104.

Britton, J. (1982). Prospect and retrospect: Selected essays of James Britton. Montclair, NJ: Boynton/Cook.

Brock, C. H., & Raphael, T. E. (1994). Mei: Constructing meaning during a sixth-grade social studies unit. In C. K. Kinzer & D. J. Leu (Eds.), Multi dimensional aspects of literacy research, theory, and practice (pp. 89-100). Forty-Third Yearbook of the National Reading Conference. Chicago, IL: National Reading Conference.

Brown, H. D. (1994). Teaching by principles: An interactive approach to language pedagogy. Upper Saddle River, NJ: Prentice Hall Regents.

Brown, J. I., Fishco, V. V., & Hanna, G. (1993). Nelson-Denny reading test. Itasca, IL: The Riverside Publishing Company.

Cambourne, B. (1995). Toward an educationally relevant theory of literacy learning: Twenty years of inquiry. The Reading Teacher, 49, 182-190.

Carrell, P. L. (1984). The effects of rhetorical organization on ESL readers. TESOL Quarterly, 18, 441-469.

Carrell, P. C. (1985). Facilitating ESL reading by teaching text structure. TESOL Quarterly, 19, 727-752.

Carrell, P. L. (1989). Metacognitive awareness and second language reading. The Modern Language Journal, 73, 121-134.

Carrell, P. C., Pharis, B. G., & Liberto, J. C. (1989). Metacognitive strategy training for ESL reading. TESOL Quarterly, 23, 647-678.

Cazden, C. B. (1988). Classroom discourse: The language of teaching and learning. Portsmouth, NH: Heinemann.

Collier, V. P. (1989). How long? A synthesis of research on academic achievement in a second language. TESOL Quarterly, 23, 509-531.

Commeyras, M. (1994). Were Janell and Neesie in the same classroom? Children's questions as the first order of reality in storybook discussions. Language Arts, 71, 517-523.

Connor, U. (1984). Recall of text: Differences between first and second language readers. TESOL Quarterly, 18, 239-256.

Cotterall, S. (1990). Developing reading strategies through small-group interaction. RELC Journal, 21, 55-69.

Dickson, S. V., Simmons, D. C., Kameenui, E. J. (1995). Text organization and its relation to reading comprehension: A synthesis of the research (Report No. 17). Oregon, Washington, DC: National Center to Improve the Tools of Educators. (ERIC Document Reproduction Service No. ED 386 864)

Dixon-Krauss, L. A. (1995). Partner reading and writing: Peer social dialogue and the zone of proximal development. Journal of Reading Behavior, 27, 45-63.

Dole, J. A., Brown, K. J., & Trathen, W. (1996). The effects of strategy instruction on the comprehension performance of at-risk students. Reading Research Quarterly, 31, 62-68.

Dole, J. A., Duffy, G. G., Roehler, L. R., & Pearson, P. D. (1991). Moving from the old to the new: Research on reading comprehension instruction. Review of Educational Research, 61, 239-264.

Edwards, A. D., & Westgate, D. P. (1987). Investigating classroom talk. Philadelphia, PA: Falmer Press.

Einspruch, E. L. (1998). An introduction guide to SPSS for Window. Thousand Oaks, CA: SAGE Publications, Inc.

Elley, W. B. (1982). Bridging the gap between first and second language learning. In L. Ruth & D. Burnes (Eds.), Aboriginal literacy: Bridging the gap (pp. 110-128). Adelaide, S. Australia: Australian Reading Association.

Englert, C. S., Raphael, T. E., Anderson, L. M., Anthony, H. M., & Stevens, D. D. (1991). Making strategies and self-talk visible: Writing instruction in regular and special education classrooms. American Educational Research Journal, 28, 337-372.

Famighetti, R. (Ed.). (1999). The world almanac and book of facts 2000. NJ: World Almanac Books.

Fitzgerald, J. (1984). The relationship between reading ability and expectations for story structures. Discourse Processes, 7, 21-44.

Fitzgerald, J., & Teasley, A. B. (1986). Effects of instruction in narrative structure on children's writing. Journal of Educational Psychology, 78, 424-432.

Fitz-Gibbon, C. I., & Reay, D. G. (1982). Peer-tutoring: Brightening up FL teaching in urban comprehensive school. British Journal of Language Teaching, 20, 39-44.

Flood, J., Lapp, D., & Farnan, N. (1986). A reading-writing procedure that teaches expository paragraph structure. The Reading Teacher, 35, 556-563.

Galda, L., Bisplinghoff, B. S., Pellegrini, A. D., & Stahl, S. (1995). Sharing lives: Reading, writing, talking, and living in a first-grade classroom. Language Arts, 72, 334-339.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). Educational research: An introduction. White Plains, NY: Longman Publishers.

Gall, M. D., & Gall, J. R. (1976). The discussion method. In N. L. Gage (Ed.), Psychology of teaching methods (National Society for the Study of Education, 75th Year-Book, Part 1) (pp. 166-216). Chicago, IL: University of Chicago Press.

Gary, C., & Snodgrass, M. E. (1999). A multicultural dictionary of literary terms. Jefferson, NC: McFarland & Company, Inc, Publishers.

Gavalek, J. R., & Raphael, T. E. (1996). Changing talk about text: New roles for teachers and students. Language Arts, 73, 182-192.

Gee, J. P. (1996). Social linguistics and literacies: Ideology in discourses (2nd ed.), Bristol, PA: The Falmer Press.

Golden, J. M. (1987). An exploration of reader-text interaction in a small group discussion. In D. Bloome (Ed.), Literacy and schooling (pp. 169-192). Norwood, NJ: Ablex.

Gordon, C. J., & Braun, C. (1982). Story schemata: Metatextual aid to reading and writing. In A. Niles & L. A. Harris (Eds.), New inquiries in reading research and

instruction (pp. 262-268). Thirty-First yearbook of the National Reading Conference. Rochester: The National Reading Conference.

Greenewald, M. J., & Rossing, R. L. (1986). Short-term and long-term effects of story grammar and self-monitoring training on children's story comprehension. In J. A. Niles & R. V. Lalik (Eds.), Solving problems in literacy: Learners, teachers, and researchers (pp. 210-213). Thirty-Fifth Yearbook of the National Reading Conference. Chicago, IL: National Reading Conference.

Guthrie, J. T., Schafer, W., Wang, Y. Y., & Afflerbach, P. (1995). Relationships of instruction to amount of reading: An exploration of social, cognitive, and instructional connections. Reading Research Quarterly, 30, 8-25.

Hanssen, E. (1990). Planning for literature circles: Variations in focus structure. In K. G. Short & K. M. Pierce (Eds.). Talking about books: creating literature communities (pp. 199-209). Portsmouth, NH: Heineman.

Harré, R. (1984). Personal being: A theory for individual psychology. Cambridge, MA: Harvard University Press.

Harris, K., & Pressley, M. (1991). The nature of cognitive strategy instruction: Interactive strategy construction. Exceptional Children, 57, 392-404.

Harris, T. L., & Hodges, R. E. (Eds.). (1995). The literacy dictionary: The vocabulary of reading and writing. Newark, DE: International Reading Association.

Hartson, E. K. (1984). The effects of story structure in texts on reading comprehension of 1st and 2nd grade students. The California Reader, 17, 6-10.

- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1998). Applied statistics for the behavioral sciences. Boston, MA: Houghton Mifflin Company.
- Holmes, D. (1998). Explaining in English. Bangkok, Thailand: Chulalongkorn University Press.
- Idol, L. (1987). Group story mapping: A comprehension for both skilled and unskilled readers. Journal of Learning Disabilities, 20, 196-205.
- Johnson, D. W., Johnson, R.T., Stanne, M. B., & Garibaldi, A. (1990). Impact of group processing on achievement in cooperative groups. Journal of Social Psychology, 130, 507-516.
- Jordan, N. C. (1994). Developmental perspectives on reading disabilities. Reading and Writing Quarterly, 10, 163-171.
- Laframboise, K., & Wynn, M. (1994). Oral participation in shared reading and writing by limited English proficiency students in multiethnic class setting. Reading Horizons, 35, 95-109.
- León, J. A., & Carretero, M. (1995). Intervention in comprehension and memory strategies: Knowledge and use of text structure. Learning and Instruction, 5, 203-220.
- Lipman, M. (1991). Thinking in education. Cambridge: Cambridge University Press.
- Littlejohn, A. P. (1983). Increasing learner involvement in course management. TESOL Quarterly, 17, 595-608.
- Loftin, L. B., & Madison, S. Q. (1991). The extreme dangerous of covariance corrections. In B. Thompson, (Ed.). Advances in educational research: Substantive

findings, methodological developments (pp.133-147). Greenwich, CT: Jai Press Inc.

Long, M. H., & Porter, P. A. (1985). Group work, interlanguage talk, and second language acquisition. TESOL Quarterly, 19, 207-228.

McMahon, S. I., & Goatley, V. J. (1995). Fifth graders helping peers discuss texts in student-led groups. The Journal of Educational Research, 89, 23-34.

Miller, K. K., & George, J. E. (1992). Expository passage organizer: Models for reading and writing. Journal of Reading, 35, 372-377.

O' Flahavan, J. F., Stein, C., Wiencek, J., & Marks, T. (1992). Intellectual development in peer discussions about literature: An exploration of the teacher's role. Urbana, IL: National Council of Teachers of English.

Ogle, D. (1986). K-W-L: A teaching method that develops active reading of expository text. The Reading Teacher, 39, 564-571.

Oldfather, P. (1993). Students' perspectives on their motivation for literacy learning (Perspectives in Reading Research No. 2). Athens, GA: National Reading Research Center, University of Georgia.

O' Malley, M. J., & Chamot, A. U. (1990). Learning strategies in second language acquisition. Cambridge: Cambridge University Press.

Oxford, R. & Nyikos, M. (1989). Variables affecting choices of languages learning strategies by university students. Modern Language Journal, 73, 291-300.

Palincsar, A. S., & Brown, A. L. (1988). Teaching and practicing thinking skills to promote comprehension in the content of group problem solving. Remedial and Special Education, 9, 53-59.

Pavkov, T. W., & Pierce, K. A. (1998). Ready, set, go!: A student guide to SPSS for Windows 7.5. Mountain View, CA: Mayfield Publishing Company.

Pearson, P. D., & Fielding, L. (1991). Comprehension instruction. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), Handbook of reading research: Vol. 2 (pp. 815-880). White Plains, NY: Longman.

Pehrsson, R. S., & Denner, P. R. (1987). Awareness of text structure enhances reading comprehension. Idaho Reading Report, 14, 4-6, 11.

Porter, P. A. (1983). Variations in the conversations of adults learners of English as a function of the proficiency level of the participants. Unpublished Doctoral Dissertation, Stanford University.

Pressley, M., Goodchild, F., Fleet, J., Zajchowski, R., & Evans, D. (1989). The challenges of classroom strategy instruction. Elementary School Journal, 89, 301-342.

Raphael, T. E., & Kirshner, B. M. (1985). The effects of instruction in compare/contrast text structure on sixth-grade students' reading comprehension and writing products (Report No. IRT-RS-161). East Lansing, MI: Institute for Research and Teaching, College of Education, Michigan State University. (ERIC Document Reproduction Service No. ED 264 537)

Raphael, T. E., & McMahon, S. I. (1994). Book Club: An alternative framework for reading instruction. The Reading Teacher, 48, 102-116.

Richgels, D. J., McGel, L. M., Lomax, R. G., & Sheard, C. (1987). Awareness of four text structures: Effects on recall of expository text. Reading Research Quarterly, 22, 177-196.

Roehler, L. R. (1991). Embracing the instructional complexities of reading instruction (Technical Report No. 208). East Lansing, MI: Michigan State University, Institute for Research in Teaching.

Roller, C. M., & Schreiner, R. (1985). The effects of narrative and expository organizational instruction on sixth-grade children's comprehension of expository and narrative prose. Reading Psychology, 6, 27-42.

Rosenblatt, L. M. (1985). Viewpoints: Transaction versus interaction - A terminological rescue operation. Research in the Teaching of English, 19, 96-107.

Rosenblatt, L. M. (1994). The transactional theory of reading and writing. In R. B. Ruddell, M. R. Ruddell, & H. Singer. Theoretical models and processes of reading, (4th ed.), (pp. 1057-1092). Newark, DE: International Reading Association.

Rumelhart, D. E. (1994). Toward an interactive model of reading. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), Theoretical models and processes of reading (pp. 722-750). Newark, DE: International Reading Association.

Schwab, J.J. (1975). Learning community. The Center Magazine (May/June), 30-44.

Slater, W. H., & Graves, M. F. (1989). Research on expository text: Implications for teachers. In K. D. Bluth (Ed.), Children's comprehension of text (pp. 140-166). Newark, DE: International Reading Associates.

Smith, F. (1983). Reading like a writer. Language Arts, 60, 558-567.

Spafford, C. S., Pesce, A. I., & Grooser, G. S. (1998). The cyclopedic education dictionary. Albany, NY: Delma Publishers.

Spiegel, D. L., Fitzgerald, J. (1986). Improving reading comprehension through instruction about story parts. The Reading Teacher, 39, 676-682.

Stahl, S. A., & Vancil, S. J. (1986). Discussion is what makes semantic maps work in vocabulary instruction. The Reading Teacher, 40, 62-67.

Stosky, S. (1983). Research on reading/writing relationship: A synthesis and suggested directions. Language Arts, 60, 627-642.

Swearingen, R. & Allen, D. (1997). Classroom assessment of reading processes. NY: Houghton Mifflin Company.

Tackett, S. A., Patberg, J. P., & Dewitz, P. (1984). The effects of story structure instruction on the recall of poor sixth grade readers. Reading Psychology, 5, 193-201.

Takahashi, E. (1998). Language development in social instruction: A longitudinal study of a Japanese FLES program from a Vygotskian approach. Foreign Language Annals, 31, 392-406.

Tang, G. M. (1991). ESL student perception of student-generated graphics as a reading strategy. Reflections on Canadian Literacy, 9, 2-9.

Taylor, B. M., & Beach, R. W. (1984). The effects of text structure instruction on middle-grade students' comprehension and production of expository text. Reading Research Quarterly, 19, 134-146.

Tierney, R. J., LaZansky, J., Raphael, T., & Cohen, P. (1987). Authors' intentions and readers' understanding. Hillsdale, NJ: Erlbaum.

Troyer, S. J. (1992). The effects of text structures on fifth graders' comprehension. Paper presented at the Annual Meeting of the National Reading

Conference (42nd, San Antonio, TX). (ERIC Document Reproduction Service No. ED 353 542)

Troyer, S. J. (1994). The effects of three instructional conditions in text structures on upper elementary students' reading comprehension and writing performance. Paper presented at the Annual Meeting of the American Educational Research Association (75th, New Orleans, LA). (ERIC Document Reproduction Service No. ED 373 315).

Vann, R. J., & Abraham, R. G. (1990). Strategies of unsuccessful language learners. TESOL Quarterly, 24, 177-198.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.

Wagner, C. (1986). Factors influencing young children's response to literature. California Reader, 19, 8-11.

Walker, M. L. (1995). Help for the "Fourth-Grade Slump" – SRQ2R plus instruction in text structures or main idea. Reading Horizon, 36, 38-58.

Watson, K., & Young, B. (1986). Discourse for learning in the classroom. Language Arts, 63, 126-133.

Wertsch, J. V. (1985). Vygotsky and the social formation of mind. Cambridge, MA: Harvard University Press.

Wertsch, J. V. (1991). Voices of the mind: A sociocultural approach to mediated action. Cambridge, MA: Harvard University Press.

Wienczek, J., & O'Flahaven, J. F. (1994). From teacher-led to peer discussions about literature: Suggestions for making the shift. Language Arts, 71, 488-498.

Wiersma, W. (1985). Research method in education: An introduction. Boston, MA: Allyn and Bacon, Inc.

Wollman-Bonilla, J. E. (1994). Why don't they "just speak?" Attempting literature discussion with more and less able readers. Research in the Teaching of English, 28, 231-258.

Yochum, N. (1991). Children's learning from informational text: The relationship between prior knowledge and text structures. Journal of Reading Behavior, 23, 87-108.